THE BUILDER

A Journal for the Architect & Constructor

DECEMBER 6, 1929. No. 4531

LEADING CONTENTS

ILLUSTRATIONS.

PLATES.

PAGE

Unitarian Free Church, West Kirby, Cheshire. Mr. Ronald P. Jones, M.A., F.R.I.B.A., Architect. Mr. Eric Thornely, Supervising Architect for erection of the building :—Exterior, 955; Interior, 956.

Sutton Coldfield Parish Church. Interior decoration designed by Mr. C. E. Bateman, F.R.I.B.A., and executed by Mr. C. G. Gray :—General View of Exterior, 957; Detail of Screen, 958; The Nave, 946 and 959.

House at West Wittering, Sussex. Messrs. Willcocks & Greenaway Architects 960

All Saints' Hall, Reading. Messrs. Willcocks & Greenaway, Architects 961

Branch Art Gallery Competition. Cannon Hill Park, Birmingham :—First Premiated Design, Messrs. A. Edgerton- Leeson & A. L. Snow, A.R.I.B.A., Architect 962

Extension to Finchley Dance Hall. Mr. J. Raworth Hill, in association with Messrs. Yates, Cook & Darbyshire, Architects :—Upper Hall, looking towards Stage, 963; General View of Upper Hall, 963; Lower Hall, 964; Crush Hall to Upper Dance Hall, 964.

Club and Institute, Kenfig Hill, Glamorgan. Messrs. Ewart G. Culpin & R. S. Bowers, Architects : Ballroom, 965; Exterior, 965; Plans, 966.

The Cathedral, Morelia, Mexico 948

Carving on Bench Ends, St. Ives 949

A Town Plan. By Mr. B. Price Davies 971

ARTICLES.

PAGE

Leader : The Charing Cross Proposals 947

Notes ..... 948 & 949

General News 950

Meetings 950

Competition News 950

Cathedral of Morelia, Mexico 950

Correspondence 951

Manchester Society of Architects 951

Charing Cross Bridge ..... 952 & 953

"The Builder" Debate : XXIV.—Steel Masts and Overhead Wires 953

Notes on Illustrations .....954 & 969

More Greek Studies : X. By W. R. Lethaby ..... 967 & 968

Modern School Buildings 968

Rural Disfigurement 969

Obituary 969

Public Works Congress ..... 970 & 972

National Housing and Town Planning... 973

Royal Institute of Architects of Ireland 974

Incorporated Association of Architects and Surveyors : Annual Dinner 974

The Surveyors' Institution 975

The Week in Parliament 976

Societies and Institutions 976

The Town Planning Institute : Presidential Address 977

Architects' and Builders' Inquiry Bureau 978

Recurring Defects : Their Cause, Prevention, and Cure : XXIII. By J. R. Taylor 979

Demolition of Buildings : L.C.C. By-laws 979

Private Street Works 980

A Rating Question 980

New Buildings in London 981

Rates of Wages in the Building Trade 982

Contracts, Competitions, etc. 983-985

Proposed New Buildings and Other Works ..... 986 & 987

Prices Current of Materials 988

Housing Progress in Scotland 989

Current Prices for Building Work in London 990

Tenders 991-994

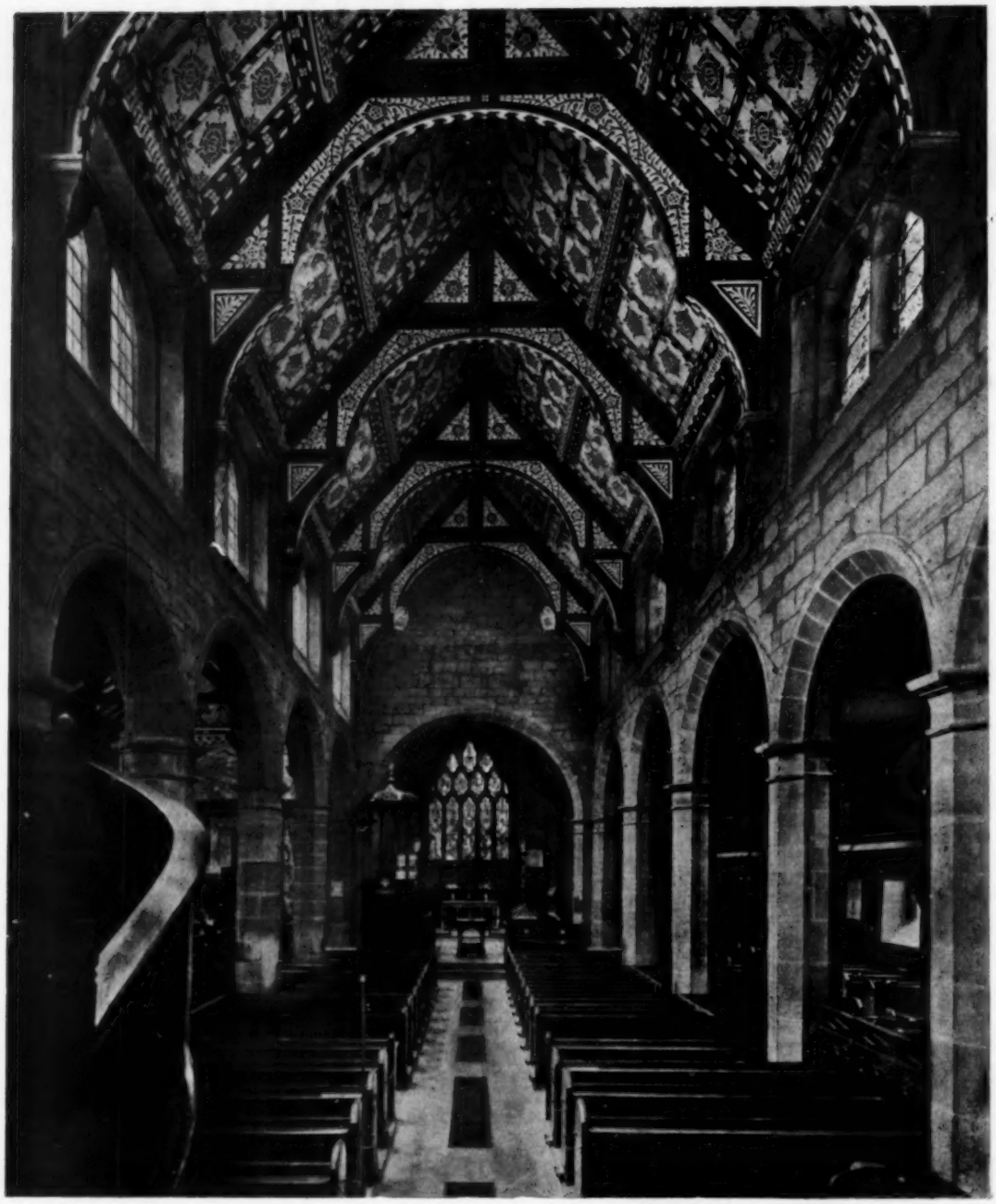
Published every Friday

THE BUILDER LIMITED

CATHERINE STREET AND YORK STREET, ALDWYCH, LONDON, W.C.2

Telephone : Temple Bar 6251 (3 lines).

87TH YEAR



Sutton Coldfield Parish Church: The Nave.

Decorations designed by MR. C. E. BATEMAN, F.R.I.B.A., and executed by MR. C. G. GRAY.

1929

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXVII. No. 4531. DECEMBER 6, 1929.

THE CHARING CROSS PROPOSALS

THE question of a new bridge at Charing Cross—the removal of the railway station to the south side and the consequent improvements in the neighbourhood—has been under discussion for many years, and readers of the *Builder* are familiar not only with the facts as to the urgency of the proposals from the traffic point of view, but of the many schemes which have been published in our columns showing how the problem could or should be dealt with. They know also that the Government are to pay 75 per cent. of the cost of the improvements which are to be carried out, and that a scheme prepared by the engineers appointed by the Ministry of Transport under the late Conservative Government has been adopted by the London County Council, who called in Sir Edwin Lutyens to assist in the design of the bridge which it is intended to submit to Parliament on the 21st of this month. It is important to bear this date in mind in considering the fact that only within the last few days have the plans for the official schemes been submitted to the local authorities affected, while other parties interested in the subject have only since Monday had an opportunity of knowing what the official scheme involves, while when we went to press it was impossible to obtain a copy of the Bill. It is true that objections to the official scheme were made by this journal and other parties when the report of the engineers appointed by the Minister of Transport was first issued, for while we and they welcomed the proposal to remove Charing Cross railway station to the south side, we were astonished at certain other proposals which were made by the engineers, and have done our best ever since to direct the attention of our readers to the serious and far-reaching character of those proposals, only to be told, after the appointment of Sir Edwin Lutyens to collaborate with the engineers, that it was useless to discuss the subject until the scheme was officially published. Moreover, we were told that every opportunity would be given to discuss the details of the scheme, and now that the Bill is published, there are just three weeks in which to do so before the proposals are presented to Parliament and we are told criticism should have come before, and it is now too late! It is surely hardly creditable to our system of government that such a sequence of events, even if normally brought about, should be possible, and that proposals involving the expenditure of many millions of money, and of the utmost importance to the public, should be rushed through in the manner proposed, and that only at the eleventh hour are the public, who after all have got to pay the cost and suffer the consequences of a bad or unsatisfactory scheme, provided with anything like details of what is intended.

Fortunately it is still only the eleventh hour, and already a vigorous campaign of action has been started in the columns of the *Times* against the official scheme by Sir Banister Fletcher, President of the R.I.B.A. (who, it will be remembered, denounced the scheme, as far as it was known at the time, in his Presidential address at the Institute on November 4), followed by Sir Reginald Blomfield, R.A., Dr. D. S. MacColl, Lord Esher, a former First Commissioner of Works, and others. We give elsewhere extracts from these letters, but we should like to quote here one or two opinions of the writers. In an able summary of the engineers' proposals, Sir Banister Fletcher says the scheme is open to very serious objections on the score of traffic, of cost, of the development of London on the Surrey side of the river, and "of the failure to provide any adequate opportunity for fine architectural treatment." This should be a sufficiently serious indictment in an enlightened community, though we suppose it is not so in ours, of proposals which are to cost twelve millions of money, and surely Sir Reginald Blomfield is entitled to say that in an undertaking of this immense cost and immense importance to the public, it is not too much to ask that before any irrevocable decision is taken "the whole question should be far more closely investigated and further advice taken." The opportunity for good or for bad is unique, he says "and it would be disastrous if the result is to be a fiasco in town planning and monumental design and a final obstacle to the regeneration of South London." Dr. MacColl characterises the scheme as one for "perpetuating and increasing a mess on both sides of the river in Central London" and one which will "write us down, all over the world, as ignoramuses in the ABC of town planning, and within a brief period will have to be wiped out and redrawn at huge cost and embarrassment."

These are strong words, but who can say they are not justified? Whether we believe in a high or a low level bridge at Charing Cross we can all, with few exceptions, join in condemning the short sightedness of the railway company concerned—a company, like other railway companies, be it remembered, which nominally exists to serve the public and who should not, therefore, be permitted to control the situation and prevent the proper development of the centre of London. We have not advocated any particular scheme, though we admit a preference for a low level treatment if engineering difficulties can be overcome—a preference due in part to a deep-rooted dislike to some of the high level schemes which have been published and to the results which may be expected to follow, and which will, in fact, follow in the proposals before us, from the adoption of a high level scheme. But, as we understand it, a high level bridge must follow if the railway company are to have their way in the site they insist on for their railway station, and a high level bridge necessitates difficult traffic debouches on the Strand level. With the railway station set back, a low level bridge is, we understand, possible, and with it many difficulties inherent in the official scheme are disposed of. Be that as it may, the official scheme is now before the public and we shall be surprised if they do not agree with Sir Banister Fletcher that the whole question should be examined *de novo*. "Other schemes," he says, "which have been proposed should be investigated, further schemes should be invited in competition in order that no effort may be spared to ensure the success of the greatest undertaking for the improvement of London made since the formation of the Thames Embankment." Surely this is the right procedure to adopt. It would be unthinkable if it were not actually intended that the proposals of the engineers now before us should be rushed through Parliament without adequate discussion—proposals involving an expenditure of many millions of money and perpetuating and adding to many of the faults of the haphazard development of London—while we have amongst us able architects and town planners who have produced, or could do so, much more economical plans which would provide a far better solution of a difficult but not insoluble problem.

NOTES

The Charing Cross Issue.

ON Tuesday, December 3rd, the London County Council approved the draft bill which is to be submitted to Parliament for the construction of the Charing Cross Bridge ; this in face of the volume of expert criticism passed upon it by the architectural profession and the learned societies and many notable individuals, and that at the time of protest a copy of the bill is not obtainable for general perusal and we ourselves have not been able to obtain a copy. It must be reaffirmed that the Council approval has ignored the opinion of all who are best qualified to judge as town planning experts. And we cannot too strongly repeat that this official project is not mainly a matter for engineers. Is it not possible for the County Council to realise the actual significance of this Charing Cross scheme ? It means so much to the future of London that to carry it through in the way proposed would be a striking reproach to all now in authority. *The Times* itself published a view a few years ago showing that the general appearance of London looking across the Thames towards St. Paul's might be as noble as any city in the world. In its issue of Wednesday it published a drawing specially prepared for the occasion, showing the value of a low level scheme. Is there not left an authority with enough imagination to see what is involved in this reconstruction of the central area ? Is the nobility and grandeur of a future London and all its possibilities to be left to those who are without the imagination to grasp the potentialities of the issue that lies before us ?

Discussion on the Charing Cross Scheme.

SOME remarks in a daily paper show how misleading and unfair conclusions come before the public, for we note a reprimand addressed to those who oppose the official scheme for Charing Cross on the assumption that all opportunity has been afforded for properly considered opposition. Sir Percy Simmons, in urging the adoption of the official scheme, made, we believe, a special promise that ample opportunity would be given for discussion of any amendments, but this has quite been falsified in the result, and it is now proposed to rush this Bill through as a matter of urgency when any expert town planner in the country would condemn it, and when the whole weight of professional opinion is against it. Surely this is most unfair to those who have some real knowledge and zeal which could be placed at the service of the public.

The Foch Memorial.

A COGENT letter has been addressed to *The Times* by Mr. W. Reynolds-Stephens, P.R.B.S., on the subject of the proposed setting up in London of a replica of the Foch statue now erected in Paris. The letter runs :— " But will it be paying the highest compliment to the French nation thus to memorialise their hero (here in London) by erecting merely a replica of an existing statue ? Would it not be a more worthy British tribute to provide a new statue by one of our leading British sculptors ? This is what the French are doing to honour Haig in France. French money is providing a special French statue. We have a strong school of British sculptors, and one of the best of them, of proven ability with such work, should be invited to do it."

Landlords and Decorations.

A CLAUSE of much interest to the owners and tenants of small houses is included in a Bill, says the *Liverpool Mercury*, to be promoted by the Liverpool Corporation in the next session of Parliament. Apparently the intention is to clarify and standardise the obligation of the owners of working-class houses to maintain their property in a condition " reasonably fit for human habitation." At present internal decoration is not held to be required by the Housing Act of 1925, and the clause in the Liverpool Bill would make it obligatory on the owners to repair, paint, paper, distemper, and generally keep in repair their working-class houses. By inference from the Housing Acts a working-class house is, in London, any house let at a rent up to £40 a year, and elsewhere, any house let at a rental up to £26 a year. The suggested provision would apply to Corporation as well as to privately-owned houses.

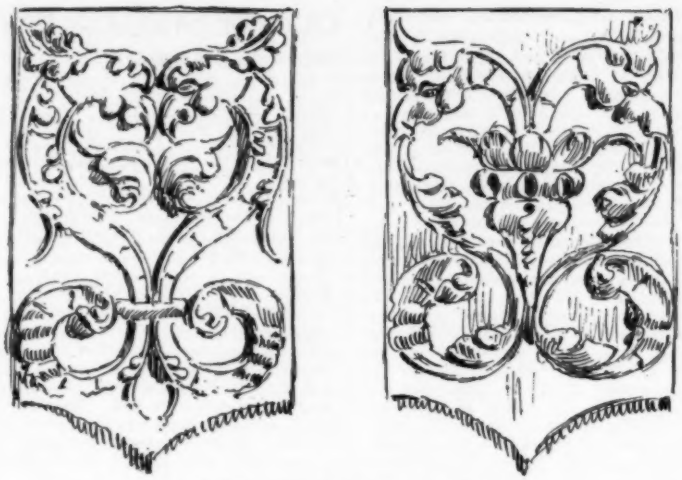
The Fitzalan Market Site, Sheffield.

MR. C. M. HADFIELD, President of the Sheffield and South Yorks Society of Architects and Surveyors, writes a very pertinent letter to the *Sheffield Independent* on the subject of the disposal of the Fitzalan market site. He says it would appear that it is intended to lease this land in several lots for building purposes, and that portions have already been so disposed of. " If," he proceeds, " this policy is to be carried out without the adoption of a properly devised architectural scheme for the whole area, and a general design to which all the buildings proposed to be erected would have to conform, it is obvious, I think, that a great error of judgment is being committed, and an opportunity (perhaps a final one) for giving Sheffield a fine architectural centre is being thrown away." As he further remarks, it is rather late in the day to have to plead for the importance, from every possible point of view, of sound architectural design. Most public authorities are fully alive to this, as may be seen from the way in which other cities are at present dealing with the problem of improving the architecture of their central areas. We hope his letter will receive proper consideration from the Market Committee and that the suggestion will be acted on. Most people will agree with the concluding remarks of his letter that " Sheffield is suffering heavily in its reputation with the outside world for past mistakes of this kind, and it will be a matter for sincere regret if history is going to repeat itself."

Better Lighting.

THE progress towards better illumination for commercial, domestic and street uses is reflected by the growth in illumination societies. These exist in Great Britain and the United States, Germany, Austria, Holland and Japan. In almost every country there

The Cathedral, Morelia, Mexico.
(*See page* 950).



Carving on Bench Ends, St. Ives.

are developing organisations which aim at bringing about better lighting. Experts on such a rapidly developing subject as lighting naturally desire to exchange views and learn of activities elsewhere, and this wish has led to continuous growth in the extension of the movement towards international treatment of the subject, which had its origin in the International Photometric Commission, founded in 1901. The expediency of broadening the scope of this body so that all illuminants and all aspects of lighting might be represented was soon recognised. In 1913 effect was given to this desire by the reconstitution of the Commission on a wider basis as the International Commission on Illumination. The Congress and the Session of the Commission held in the United States last year probably formed the most important conference on lighting matters ever held. It was marked by great enthusiasm, being attended by 500 delegates from all over the world.

The 1931 Congress. ARCHITECTS and others to whom the trend towards the incorporation of lighting in the architectural scheme is apparent, will learn with pleasure that it has been decided that the next International Illumination Congress is to be held in Great Britain in 1931. In this country the machinery for the study of illumination is perhaps more perfectly organised than in many other places, and the aid of all the leading scientific and technical bodies interested and of organisations concerned with gas and electric lighting is being secured. The National Illumination Committee of Great Britain, in co-operation with the Illuminating Engineering Society, will be responsible for this important event. The International Illumination Congress, which will take place during the period September 3 to 13, 1931, will be combined with a *voyage d'etude* of places of interest in England and Scotland so that other cities besides London will share in the work of the Congress. Papers dealing with the most varied aspects of lighting will be presented, and these will be grouped so as to ensure that topics of special local interest will be dealt with at each centre. Those wishing to participate should communicate with the Honorary General Secretary of the Congress, Col. C. H. Silvester Evans, at 32, Victoria-street, S.W.1.

The New Psychology. MODERN legislation has unearthed a matter for architects in the designing of public dining-rooms. It appears — according to Miss Ellen Wilkinson—that the tables in the centre of a room are always left to the last, while the tables by the wall are packed. Those who serve the centre tables must often go without work—and rewards. It is the penalty of tipping that now brings the matter before a Trade Board. Students of architecture with a bias towards the development of functional design will therefore await the decision whether public dining-rooms must be long and narrow, or whether managements will have to pay the waiters in the centre a living wage. It is a nice point in psychology and in architecture.

Figure in "The Duchess" Theatre, Catherine Street, W.C.

MR. ARNOLD AVERBACH, Sculptor.

The March of Electricity. THE recent correspondence in the Press upon the damage to the landscape by towers and cables for electricity should serve the purpose of evolving simple designs for the things that fulfil some human need. There is little doubt that the world to-day is hardly more than on the threshold of development in electrical energy. Without really understanding it, mankind has learned how to create and make use of this mysterious energy. Similarly, without really understanding æsthetics, mankind has blundered along perpetually in conflict with the material things that contribute to our needs and our comforts.

Electricity and Aesthetics. THE applications of electricity are ever widening, and no one can do more than make a guess at the potentialities. In the home, electricity shows at best but a minor aspect of its uses, although even here labour-saving and cleanliness are important factors in the planning of the homes of the future. When the employment of electricity becomes general, the smoke and grime of our cities will be nightmares of the past. This is something so worth striving for, that it is unfortunate there should be gains and losses. Fine art may have nothing to do with human needs, but art—or whatever name we care to call it—is lagging behind our scientific developments. We sometimes wonder if the things we are sure we dislike now will be the things to have their own peculiar charm in the future when we become accustomed to them.

Upside Down. IT will be many years before modern art lives down the true story from New York where a jury composed of twenty members of the Academy awarded a prize of £100 to a picture hung from the side. Apparently the picture had been exhibited at Pittsburg, and there, too, it was displayed hanging the wrong way up. Laughter is now on the side of those who have been in similar difficulties with modernist art. It has been the complaint of many against this school that a picture stood on its head conveyed as much impression as when right side up—if there is a right side.

GENERAL NEWS

Professional Announcements.

Mr. T. C. Howitt, A.R.I.B.A., has, by permission of Nottingham City Council, resigned his position as City Architect in order to commence in private practice. Mr. Howitt has been retained as Housing Architect for a period of three years

Mr. C. Terry Pledge has removed to 56, Sherwood-way, West Wickham, Kent.

The "Duchess" Theatre.

It should have been stated in our last issue that the sculptured figures on either side of the circle of this theatre are the work of Mr. Arnold Averbach. One of these figures is illustrated on page 949.

Bridlington Town Hall.

The Bridlington Town Council has decided to proceed with the erection of new municipal offices, at estimated cost of £42,750, on the definite promise of the Ministry of Labour to make a grant of 75 per cent. of the total cost, for the first half period (fifteen years) of the loan, and amounting to £31,000.

The Radcliffe Observatory, Oxford.

We learn that Messrs. Collcutt & Hamp, 126, Wigmore-street, W.1, are preparing sketch plans for the erection of extensions at the Radcliffe Infirmary, Woodstock-road, Oxford. As given in our last issue, these extensions will be on the grounds of the Radcliffe Observatory, purchased for the purpose by Sir William Morris.

New Charing Cross Bridge.

Westminster City Council has adopted a recommendation from its Law and Parliamentary Committee that the council should call in an independent engineer to prepare, in collaboration with the engineers of the three parties, a scheme of improvements necessary on the northern side of the river to complete the scheme already prepared by the London County Council and the Ministry of Transport for the construction of the Charing Cross bridge and its approaches.

A Model House.

We learn that Messrs. Higgs & Hill, Ltd., of South Lambeth, have constructed for the *Daily Mirror* a miniature house—to the design of Mr. Maxwell Ayrton, F.R.I.B.A. It is 7 ft. 6 in. high and has 12 rooms. It stands on a pedestal of rock and green turf, and is in the Elizabethan, half-timbered style. Furniture, fittings and decorations are all to strict scale. Every window is diamond-paned, with genuine leaded mullions. The model will be on view from December 19 at the Grafton Galleries.

Hants County Buildings, Winchester.

Winchester Castle Committee has reported to the County Council with regard to the need for further accommodation for the departments of the County Council in Winchester, and the Council then authorised the expenditure of a sum of £35,000 for the erection of new offices in Castle-avenue and Castle-yard. The committee intimated that they proposed, as on previous occasions when the erection of buildings on Castle Hill were necessitated, to submit their proposals to a consulting architect. The plans have been examined by Sir Herbert Baker, A.R.A., who has visited the site and conferred with the County Architect with regard to a few details of the new buildings. The committee have adopted certain suggestions made by Sir Herbert Baker, and the plans have since been approved by him.

CATHEDRAL OF MORELIA, MEXICO.

Mexico, once more in the throes of another revolution, is extraordinarily rich in old buildings of the colonial period. There is hardly a town of any size which does not possess some fine examples of ecclesiastical and secular architecture. Among the innumerable stately churches and convents with which the country is so richly endowed, the Cathedral of Morelia (page 948) is notable. Although its construction lasted from 1640 to 1744, the building shows a singular unity of style, which indicates that the original design has been faithfully carried out. This cathedral is the only important church in Mexico built in the Plateresque style. The material employed is a pinkish trachyte, which is set off to perfection by the clear atmosphere and bright sunshine of the locality. The normal Spanish plan is followed, consisting of choir, transepts with central dome, nave and aisles, and a façade flanked by lofty towers. Beyond the aisles there is a series of small chapels. The flying buttresses and the pierced parapets with turned balusters give a finish to the work, often wanting in Mexican churches. The dome, which is decorated with coloured tiles, is rather too small, and this, perhaps, is the only fault which can be found with the exterior. The interior is less satisfying since it has suffered from excessive renovation, which has robbed it of the superb fittings which it formerly possessed. The rich treasury was looted seventy years ago, but some valuable plate still remains. The carved and gilded choir stalls are particularly effective. A spacious stone-flagged atrium extends round three sides of the building, closed in by some fine iron fencing and gates.

EDWARD T. LONG.

MEETINGS

SATURDAY, *December* 7.

London Association of Builders' Foremen and Clerks of Works. Annual Dinner. At the Hotel Cecil, W.C.2. 6.30 p.m.

Institution of Municipal and County Engineers. South-Western district meeting. At Exeter. 2.30 p.m.

MONDAY, *December* 9.

Surveyors' Institution. Mr. W. E. A. Bull on "The Landlord and Tenant Act, 1927, in operation." 8 p.m.

TUESDAY, *December* 10.

Illuminating Engineering Society. Discussion on "Problems in Illuminating Engineering." At the Home Office Industrial Museum, S.W.1. 7 p.m.

West Sussex Building and Allied Trades Employers' Association. Mr. F. L. Brady on "Cast Stone." At Worthing. 3 p.m.

WEDNESDAY, *December* 11.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, P.R.I.B.A., on "Greek Architecture (3000—146 B.C.)." 6 p.m.

Institution of Civil Engineers. Discussion on "The Heating of Buildings by Electricity off Supply Mains, with special reference to the Problem of Heat Storage and Off-Peak Loads." 6 p.m.

Royal Society of Arts. Major Charles Wheeler on "Overheads and other Factors influencing Road Transport Costs, from an Engineer's Viewpoint." 8 p.m.

THURSDAY, *December* 12.

Society of Antiquaries. Mr. Sidney Toy on "Castles of the Bosphorus." 8.30 p.m.

Victoria and Albert Museum. Miss Muriel Clayton on "Mediæval Brasses." 5.30 p.m.

Geffrye Museum. Mr. C. A. Hindley on "Veneering, Past and Present." 7.30 p.m.

FRIDAY, *December* 13.

Institution of Structural Engineers. Discussion on "Welded Steel Structures." At Birmingham. 6.30 p.m.

Institution of Structural Engineers. Annual Dinner. May Fair Hotel, W.1. 7.15 p.m.

COMPETITION NEWS

Ongar Cottage Hospital.

The committee of this hospital invite designs, with plans, for the erection of a small cottage hospital (16 beds), with suitable accommodation for the staff and the necessary sanitary arrangements, lighting and heating. The cost is not to exceed £3,000. A fee of £5 5s. will be given for the selected design. Designs are to be sent in to the hon. secretary, Mr. C. H. Foster, Ongar, Essex, on or before January 31.

Branch Art Gallery, Cannon Hill Park, Birmingham.

The assessor in this competition, Mr. Ernest C. Bewlay, F.R.I.B.A., has made his award as follows:—1st, Messrs. A. Edgerton Leeson & A. L. Snow, A.R.I.B.A., Colmore-row, Birmingham; 2nd, Messrs. D. G. Walton, A.R.I.B.A., & T. Wynne Thomas, of Moseley, Birmingham; 3rd, Mr. William H. Ashford, A.R.I.B.A., of Newhall-street, Birmingham.

Freemasons' Hospital, Ravenscourt Park.

The assessors in this competition have awarded first place to Sir John Burnet & Partners, who have been appointed architects.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Designs for "Pavilion of Light," at Olympia, offered by G.E.C. and *Daily Mail*. £1,000 in prizes for architects, artists and contractors. Sir E. Lutyens, Sir Duncan Watson, Messrs. P Connard, Oliver Bernard, D. G. Tanner and G. G. Wornum, assessors. Apply, Electrical Comp., *Daily Mail*, Carmelite House, E.C.4, before October 26	Oct. 18	Dec. 14
Municipal pavilion and refreshment rooms, etc., on site of old Waterloo Hotel, for Aberystwyth T.C. Mr. Arnold Thornely, F.R.I.B.A., assessor. Premiums: £100, £70, £30. Mr. T. J. Samuel, Clerk, Town Hall. Dep. £2 2s.	Sept. 27	1930 Jan. 1
Municipal Buildings, Assembly Hall and Law Courts in Victoria Park, Swansea, for the Corporation. Premiums: £750, £500, £300, £200. Assessor: Mr. H. V. Ashley, F.R.I.B.A. Mr. H. L. Lang-Coath, Town Clerk, Guildhall. Dep. £2 2s.	July 5	Jan. 18
Designs for Anzac Memorial, for the Trustees, to be erected at a cost of £75,000 in Sydney, N.S.W. Conditions from Agent-General for N.S.W., Australia House, W.C.2. Copies also at R.I.B.A.	Aug. 30	Jan. 24
New Police and Fire Stations in Manchester-rd., for Accrington T.C. Mr. H. J. Rowse, F.R.I.B.A., assessor. Premiums of £250, £150 and £100. Town Clerk, Accrington. Dep. £2 2s.	Oct. 4	Feb. 28

Steel Structures Research Committee.

In regard to the Steel Structures Research Committee of the Department of Scientific and Industrial Research appointed to review present methods and regulations for the design of steel structures, including bridges, and to investigate the application of modern theory of structures to the design of steel structures, including bridges, and to make recommendations for the translation to practice of such of the results as would appear to lead to more efficient and economical design, the London County Council has acceded to the request that the Council's architect, Mr. G. Topham Forrest, may be permitted to serve thereon.

CORRESPONDENCE

Small Domestic Building and the Architect.

SIR,—There is only one point in the article under the above heading by "T. J." (*The Builder*, November 22) to which I take exception. Theodore James writes that "we may console ourselves with the thought that Time's gentle fingers will rub out much of that ugliness" of the houses of recent years. "If one stands,"—or rather sits—as I have often done, "in front of many of the older cottages and small houses in some of our most beautiful villages and mentally strips them of the effect of weather," one arrives at a result altogether different from that which the modern work gives. Is it a different result on account of the general proportion and detail, particularly in respect of windows and doors? Or is it the spirit of the old work that makes the difference? I have often heard it said that architecture represents the spirit of its age. Perhaps the modern work is like the furniture in Mr. H. A. Vachell's book and play, "Quinney's"—half antique and half George V. In any case, the War is no excuse, for there were plenty of the senior members of the profession at home during the War. What were they doing to protect the interests of those who kept them alive? Obviously they were pursuing their well-known policy of self-aggrandisement.

O. NEWBOLD.

"A Doubtful Practice."

SIR,—The hon. sec. of the Quantity Surveyors' Committee, Surveyors' Institution, 12, Great George-street, S.W.1, would be glad to have particulars of any case in which a surveyor has made up estimates in the manner described by "Turk" in your last issue.

J. E. DROWER,
Chairman of the Quantity Surveyors' Committee.

SIR,—With reference to "Turk's" letter, under this heading in last week's *Builder*, his remedy, and that of all architects and building owners, is obvious and simple, viz.: to employ only a chartered quantity surveyor who, in the extremely remote possibility of his indulging in such unprofessional conduct as mentioned, would be faithfully dealt with by his Institution.

CHARTERED QUANTITY SURVEYOR.

The Architect's Name on Buildings.

SIR,—"J. R. T.," in his letter in last week's *Builder* on the subject of signatures, suggests that were architects to standardise the practice of signing buildings, in a few years' time the public would look for the signature on a building just as naturally as when buying a picture. Is "J. R. T." not aware that most of these people who buy pictures look at a picture incidentally to buying a signature? Were buildings to be consistently signed, fashionable reputation would weigh even more with the public than it does already.

Artists paint all their own pictures, and so have an indisputable claim to sign them. Many architects would only be in a position to sign buildings largely in the sense of the retail shopkeeper.

M. M.

SIR,—Apropos the vexed question whether architects should sign their work, Norman masons invariably left their own chisel marks on corner, arch, key and other stones. Architects who take a pride in their creations should know that the layman is also interested, as much so as in other works of art.

CHARLES MATTINGLY.

Trade Catalogue Sizes.

SIR,—The problem of storing and filing trade catalogues, to which "An Architect Abroad" calls attention in your issue of November 29, is of special interest to the Committee of the Materials Bureau at the Architectural Association, as only last week, at the monthly meeting of this Committee, this problem was referred to by the Curator, and the Committee came to the unanimous conclusion that the real solution to the problem was a standardised size for catalogues, having in mind the success of the American system.

The members of the Committee, who are all practising architects, gave expression to the difficulty they experience in connection with trade catalogues, with which they are inundated, and which are of varying sizes, from the unwieldy to the almost minute. Certain members called attention to the fact that not only did this difference in sizes vary with different firms, but that in some cases individual firms issued catalogues and pamphlets of varying shapes and dimensions, with the result that more often than not they found their way into the wastepaper-basket.

Although the A.A. Materials Bureau Committee felt that this question was a little outside its province, having its hands completely full with what it considers the useful task of maintaining an up-to-date and progressive Bureau for the use of members, it may perhaps not be out of place to record its views on the troublesome question of the trade catalogue.

F. R. YERBURY,
Secretary,
The Architectural Association.

MANCHESTER SOCIETY OF ARCHITECTS

GOVERNMENT WORK AND THE COMPETITION SYSTEM.

THE annual dinner of the Manchester Society of Architects was held on Friday, November 29, in the new Masonic Temple, Manchester, designed by Dr. Percy Scott Worthington, who was recently nominated to receive the Royal Gold Medal of the R.I.B.A. Mr. J. Theo Halliday, president of the Society, occupied the chair.

Mr. Vincent Harris, having congratulated Dr. Worthington on his nomination for the Royal Gold Medal, dealt with the necessity for open competition for large architectural work such as that planned by the Government, and he suggested that this was the only way to use fully the men now trained in the schools. He was, he said, a confirmed evangelist of the system of open competition. It had produced such noble piles as St. George's Hall, Manchester Town Hall, Leeds Town Hall, Liverpool Cathedral, National Museum of Wales, National Library of Wales, Port of London Building, the London County Hall, and other buildings, all striking contributions to our national architecture and all the work of young men. Manchester had always been the school of advanced thought, and at the start of modern municipal government, when it required a building to house its administrative departments, it was broad-minded enough to throw open the scheme to competition. The successful design was the forerunner of those town halls which had offices surrounding a large public hall. It was some time after that London, through force of local circumstances, was able to follow the example of Manchester and embark on the splendidly conceived plan of the late Mr. Ralph Knott, which was only now being brought to final fruition. The speaker expressed his personal thanks to Manchester for choosing the town hall extension design by open competition. Only by this open method, he said, could architecture advance. The Institute and its allied societies must see that this system was kept alive, for in a recently inspired speech by a Minister of a Government department it was strongly implied that future national buildings would be carried out departmentally; this was a preliminary indication of the fate that awaited the important national buildings about to be erected in London, Edinburgh, and Cardiff. That system was a menace both to the art of architecture and to its profession.

Mr. J. Theo. Halliday, in proposing the toast of "The Institute and Allied Societies," having congratulated Dr. Worthington on his selection "for the highest honour which architects could pay," also dealt with the question of competitions for Government buildings, and recalled that Sir Banister Fletcher at the beginning of his year of office had entered the lists with a letter upon the Charing Cross Bridge. That suggested it was going to be a year of fights. There was also the business of the great Government building on the Embankment to be decided, and he believed Sir Banister would prove to the Government that sportsmanship in these things ought to be observed. In conclusion, he claimed for the Institute a true apostolic succession from the great works of art to which one paid reverence. Every member who tried to interpret this age sincerely could claim a place in the noble ranks. If a man did not feel that what he did had its relation to the works of men like Michael Angelo and William of Canterbury then he ought not to be allowed to block out the light in any of Manchester's streets.

Sir Banister Fletcher, in replying to the toast, said it was a magnificent thing for Manchester that it should have produced a Royal Gold Medallist, and it was a great pleasure to see him in the "latest creation of his fertile brain." He doubted whether there had ever been a time which offered such opportunities to architects as the present. When one considered the novel types of structure which could be used, it seemed clear that architects had a great possession. There seemed in the past no time in which architecture and the community were so bound up as at present. Referring to the work of the Greater London Regional Planning Committee, the speaker said a deputation had recently gone to Mr. Arthur Greenwood, and had from him an assurance that a new Town Planning Act would shortly be attempted which would make it much more easy for such committees to take the summary action they needed in face of present difficulties. They needed sufficient powers to deal with amenities of the countryside.

Mr. James R. Adamson, proposing the toast of "The City of Manchester," said in that city many fine new modern buildings were springing up, buildings which could at least hold their own with those of any part of the country.

Councillor Noton Barclay, the Lord Mayor, replying for the city, said Manchester was now beginning work upon the new Library and Town Hall extension. He was sorry that the new art gallery was still "in the air," but he was sure there was a desire on the part of all those concerned in the scheme that it should take shape. The scheme had stood too long. Manchester, of course, was passing through a difficult time, and must examine the financial side of a scheme. But Manchester had faith in itself to go on with a work which was absolutely essential. There were values in putting art in its proper place which could not be expressed in money. He was very glad to hear how many good buildings were going up in the city. In the last year plans had been approved by the City Council for buildings which would cost £2,436,000. That did not suggest that the city was "going to the dogs." Architects, at least, did not seem to have suffered from the post-war mania which had infected some artists. Pictures had been produced fit only for the walls of lunatic asylums, music fit only for Bedlam.

Alderman Will Melland, who replied for the guests, recalled the request of the last Lord Mayor that architects should help the city in its work. The city, he said, felt very grateful for the large response to that invitation. The architects and the Royal Manchester Institution had been most helpful in planning the Parr's Wood approach; and they had helped to form the new Civic Committee.

CHARING CROSS BRIDGE

WE take the following extracts from correspondence which has appeared in the "Times" on the subject of Charing Cross Bridge.

Sir Banister Fletcher, P.R.I.B.A., writes: "This scheme is open to very serious objections on the score of traffic, of cost, of the development of London on the Surrey side of the river, and of the failure to provide any adequate opportunity for fine architectural treatment.

1. Traffic.

"(a) The proposed position of the station interferes with traffic north and south on the Surrey side of the river. The Belvedere-road is stopped altogether, the York-road would have to pass under a tunnel some 350 ft. long, and there would be no other roadway.

"(b) Waterloo-road would also have to pass under a tunnel of the railway, and the new roadway, about 350 ft. long.

"(c) No provision is made in the scheme for a continuous roadway passing along the river front as on the Middlesex side.

"(d) On the west or Middlesex side of the river no provision is made for access to the Embankment or Northumberland-avenue, and there is no direct outlet for traffic going north-west. The lozenge-shaped place intersected by the Strand, which occupies some two acres of ground, duplicates the roundabout of Trafalgar-square, and as all traffic crossing the bridge must enter from the Strand, traffic would be seriously congested at this point.

"(e) The scheme makes no attempt to meet the requirements of traffic outside the immediate neighbourhood of the new bridge and station, or to improve the access to and from London from the Kent and Surrey side. Any proposals for alteration of roads should be part of a far more comprehensive scheme than is suggested by the official plan.

2. Cost.

"The cost of this scheme is enormous without compensating advantage in the development of frontages. On the west side it involves the destruction of Coutts's Bank, Gatti's Restaurant, the schools and rectory of St. Martin's-in-the-fields, and other buildings. On the Surrey side the whole of the north side of the new roadway from the river nearly up to the existing Waterloo Junction station, a length of over 1,500 ft. would be a blind wall of the new station and of the adjoining portion of the railway.

3. Development on the Surrey side of the river.

"The site allotted to the new station comes right up to the river instead of being set back at some distance from it. This renders impracticable that opening up and development of the district on the Surrey side between the river and the existing railway from London Bridge to Charing Cross Bridge, which has long been regarded as an urgent necessity. It has indeed been suggested that the whole idea of a station above ground is out of date, and that the right solution is to place it underground. If this is practicable, it would remove some of the most serious objections to the official scheme.

4. "In regard to architectural treatment this scheme appears to have been designed without any reference to the possibilities of great monumental design.

"(a) It does away with the possibility of a long vista. By an alteration of the line of the bridge and roadway it would be possible to get an uninterrupted vista from the south-east corner of the National Gallery and St. Martin's Church right through to the high ground beyond London to the south-east. With the exception of the Mall there are no vistas in London, and a vista such as would be possible at Charing Cross would be of inestimable value to London from every point of view.

"(b) The pear-shaped Place on the west side where the roadway turns north-west, would render any satisfactory architectural treatment here impossible.

"(c) The blind wall of the station and railway on the east side would be exceedingly ugly. Beyond this point the road continues anyhow, and no consideration seems to have been given to the effect this would have on the architecture.

"The Royal Institute of British Architects views with very grave concern the possibilities of the plan of this great undertaking being settled on wholly inadequate consideration. So far the scheme appears to have been determined solely with regard to the interest of the Southern Railway and the supposed requirements of traffic. There are other considerations of first-rate importance which should be taken into account in the public interest, not only for this but for future generations, and before any final decision is made in regard to the bridge, the roadway, and the station, the Royal Institute submits that the whole question should be examined *de novo*. Other schemes which have been proposed should be investigated, further schemes should be invited in competition in order that no effort may be spared to ensure the success of the greatest undertaking for the improvement of London made since the formation of the Thames Embankment."

Sir Reginald Blomfield writes:—"The statement of objections to the official scheme for Charing Cross, signed by Sir Banister Fletcher, is, I submit, to be taken not only as the personal view of Sir Banister, but as the considered view of the Royal Institute of British Architects, over which he presides. It is well known that the official scheme is regarded with grave dissatisfaction by all those who have studied it with sufficient technical knowledge to realise what it means, and the objections summarised in the communication signed by Sir Banister do not by any means overstate the case. It seems that there is a risk of this scheme being rushed through as it stands. Surely, in an undertaking of this immense cost and immense importance to the public, it is not too much to ask that, before any irrevocable decision is taken, the whole question should be far more closely investigated and further advice taken. The opportunity for good or for bad is unique, and it would be disastrous if the result is to be a fiasco in town planning and monumental design, and a final obstacle to the regeneration of South London."

Mr. Percy Lovell, Organising Secretary of the London Society, writes:—"The importance of the south side lies in the opportunity for relieving east to west traffic to and from the City (north of the river) by opening up new routes through Lambeth and Southwark. With the elimination of the railway viaduct between Charing Cross and London Bridge and power to levy a betterment on the increased values that would result, a start could be made on a really good development on the south side."

Dr. D. S. MacColl writes:—"The public has reason to be grateful to Sir Banister Fletcher and his colleagues of the R.I.B.A. for the lead they have given at a critical moment. It is the eleventh hour for action, since the intention is to rush a Bill through Parliament in a form that must be accepted or rejected, with no possibility of amendment: a Bill to sanction a scheme that has never been officially published. And what a scheme! It is one for perpetuating and increasing a mess on both sides of the river in Central London. It has no defenders among professional critics to whom it is known, whether they speak for architecture or for traffic. It will write us down, all over the world, as ignoramuses in the A B C of town-planning, and within a brief period will have to be wiped out and redrawn at huge cost and embarrassment. The Government will probably plead that their predecessors are responsible; but they will not escape the judgment of history so easily. Furnishing 75 per cent. of the cost, they have the whip hand and should not permit themselves to be dictated to by the short-sightedness of a railway company. In the matter of Waterloo Bridge a public protest at the last moment induced the then Government to withdraw a final sanction. The omen is good for the present emergency."

Lord Esher writes:—"In common with other members of Parliament I shall be called upon to give a vote for or against the Charing Cross Bridge scheme. Politics are not involved in this matter. The ordinary leadership of parties is abrogated. As no lay examination of so technical a problem is possible, anyone called upon to vote for or against the Bill must look to the most competent authority for guidance. I, for one, shall accept the leadership of Sir Banister Fletcher, speaking on behalf of the Royal Institute of British Architects, and of Sir Reginald Blomfield, speaking forcefully, as he always does, for himself. My vote will be given against the Bill; and if a proper whip up of Peers is issued, the result cannot be in doubt."

Commenting on a statement in an article in the "Times" that "the view in official circles yesterday was that the project has gone too far now to admit of amendment and that alternative proposals have come too late," Sir Banister Fletcher writes:—"This attitude as a reason for proceeding with the official scheme cannot be allowed to pass unchallenged. The statement itself cannot be regarded as correct; for alternative schemes existed and were made public long before the present official scheme was put forward. To take two only: as long ago as 1916 the very practical and straightforward scheme for a low level bridge by the late Edwin T. Hall, F.R.I.B.A., was published in the R.I.B.A. journal. Then there was the somewhat similar but perhaps even better plan as regards the distribution of traffic and freedom from insanitary approach viaducts of Messrs. Niven, Caroë, and Muirhead. These schemes were not 'too late,' but apparently they were too early to arrest the serious attention of the responsible authorities. In addition, there has actually been a public exhibition of several possible plans for all to see at Lancaster House, the headquarters of the London Society. These alternative proposals have thus been in advance of the official scheme, but what is undoubtedly true is that occupation with the official scheme has so blocked the way and has been such an objective association in official minds as to make them apparently hardly conscious of these other already existing schemes, and certainly there has not been that serious consideration of their merits or of suggestions contained in them which might well have been incorporated in any final scheme. . . . I plead for delay as essential to a right decision. Let there be further delay, let there be further negotiations with the Southern Railway, but let us not be in a hurry to carry out a project which will be pointed to for all time as London's monumental mistake."

Captain George S. C. Swinton writes:—"The architects apparently wish the Southern Railway to go to ground, and, though elevated streets can certainly be combined with fine architecture, everybody agrees as to the ugliness of railway viaducts, and that it is a pity that the lines cannot be tucked away out of sight. But we cannot get over these facts. South London is very large, very low, and very flat, and has to be drained. So the sunken railway lines would have to be at tube-level. Its 2,000,000 inhabitants might soon learn to use lifts and moving stairs, but what about its trade? Could we have not only great termini but great goods yards under the drains, down in the London clay? They would not be convenient—or very healthy. Are not the achitects perhaps forgetting drainage. No, underground is impossible, but, if the architects think that the full advantage is not going to be taken of that wonderful river-

front, why do they not induce the railway company to agree to place their terminus only 200 yards farther back along their line, by the New Cut, opposite their Waterloo Station, and connected under cover with both it and the Bakerloo Tube ?"

Mr. W. R. Davidge writes:—"The proposal which is now seen by the public for the first time is an entirely different one from that recommended by the Royal Commission on Cross River Traffic. It is not the plan which was recommended by the advisory engineers appointed by the Ministry of Transport. It has, so far as is known, not been considered or recommended by the engineer recently appointed to carry it out, and the scheme was apparently prepared before his appointment. . . . If the scheme goes through in its present form the future replanning of the Surrey side will be rendered almost impossible. Waterloo-road and York-road will both be turned into dark and dismal thoroughfares and for all time the railway viaduct across South London will perpetuate miles of unnecessary slums and derelict property. The present difficulty of all connected with the scheme is the insistence of the railway in keeping above ground. An underground loop railway from London Bridge to the City, Charing Cross, and Waterloo would remove most of the difficulties and leave the sites of the present railway and its bridges free for the development of this all-important part of London on sound lines."

Sir Percy C. Simmons, chairman of the Improvements Committee of the L.C.C., writes :—"The Bill will, it is expected, in due course be inquired into by Parliament, who will give, as always, an impartial and unbiased decision on the scheme in the light of such evidence as may be placed before it. I think it right to communicate with you in this sense, in case silence in the Press should be taken to indicate the absence of an adequate answer to our critics."

Mr. H. V. Lanchester writes :—"Having gone carefully into this aspect of the question [of the possibility of reorganising passenger traffic at a low level on the Surrey side], I am convinced that not only is it practicable, but that a very greatly improved organisation of such traffic could be devised, partly carried by tube construction, but delivering at suitable levels for general convenience, and affording facilities for direct underground communication with Smithfield and Covent Garden Markets. The cost of this work would be largely recouped by enhanced values and amenity in the large area south of the Thames, which would be freed from the obstructive railway viaducts, and might thus form part of a fine comprehensive scheme for the improvement of London on both sides of the river."

Charing Cross and the L.C.C.

On Tuesday the London County Council approved of the draft Bill which is to be submitted to Parliament for the construction of Charing Cross Bridge. In the debate on the recommendation to approve the draft "with such alterations as the Parliamentary Committee may consider necessary," Admiral Hunter said that in his view the scheme, with its overhead roads, was a mad one, and he would oppose it as long as there was any chance of saving such an expenditure. No details had been submitted to the Council. On the Westminster side there was to be a circus in the Strand, and there would be an enormous destruction of property. It was true that the Bill had to be submitted to Parliament, but he saw no reason to hurry. Why should they not delay and put the whole scheme forward properly? Opposition was beating up outside, and he was not surprised. The question should be more closely investigated and advice taken.

Mr. Percy Harris said that they were embarrassed to some extent because if they allowed the opportunity to slip they were not likely to get it again, and at the moment public opinion was behind the Council; moreover, the building of the bridge would relieve to some extent the problem of unemployment. However, they could not disregard either the London Society or the Royal Institute of British Architects, and it was a pity that Sir Percy Simmons had not taken such interests into his confidence. It might be that Sir Percy thought it would have created trouble. He thought the Council should see a model of the bridge, for members were still in the clouds. The Council's engineer was responsible for the technical side, and artistic considerations rested with Sir Edwin Lutyens.

Mr. E. G. Culpin said he understood that the door was not yet bolted and barred against alteration. In his view the plan, if carried out, would be one of the greatest disasters London had ever been faced with. It would involve a waste of three or four millions of money and make the existing traffic difficulty worse. From the point of view of the south side it would perpetuate chaos and prevent the construction of the beautiful embankment London had longed for. He trusted that Sir Percy in his anxiety to secure a bridge would not accept anything but the best that could be secured.

Sir Percy Simmons said that he had a great admiration for Sir Reginald Blomfield and Sir Banister Fletcher, but he did not know why Lord Esher should follow them rather than Sir Edwin Lutyens, who had had as much experience of building on a large scale as any other architect in this country, if not more. The scheme now before the Council had Sir Edwin's approval. But the scheme was largely an engineering problem, and the most eminent engineers had been consulted. They had also had guidance from the experts of the Ministry of Transport. It was curious, if this was the bad scheme Sir Banister Fletcher suggested, that there should have been no criticism from engineers. It was unfortunate that the criticism of the Royal Institute of British Architects should have only started last week, because the plan was approved by the Council last July, and the Institute asked for the loan of it so far back as September. He did not say it was more than a coincidence that the correspondence in the Press only started last week—the very week that Sir Edwin Lutyens was on his way to India and had no opportunity of controverting the Press campaign.

Answering a few of the points raised in the correspondence, Sir Percy said that it was suggested that, from the traffic point of view, it was a bad scheme. He thought the Council was satisfied that it was going to be a great contribution to the problem, and the Ministry of Transport was satisfied that it would be of great benefit. There was nothing in the scheme to prevent the improvement of the south side. In fact, they were on the way to two great improvements —at the Elephant and Castle and at Vauxhall Cross. It was said that one of the faults was that there could be no continuation of the Embankment on the Surrey side. Such a scheme was impracticable, because there could be no road in front of County Hall or St. Thomas's Hospital. What, however, he considered would be a great boon to people on the south was the projected garden—a very attractive feature of the plan. The Westminster City Council had raised the question of the traffic difficulties at Nurse Cavell's statue. All agreed that some further improvement would have to be made there and further conferences would have to take place. The scheme before the Council would not prevent that.

If it was held that Parliament would pass no Bill which did not receive the approval of all the learned societies, he thought the Council would be well advised to reject the scheme. But it was practically impossible to go forward with any architectural scheme without having criticism.

The Council then, without a division, approved the draft Bill *nem. con.*

"THE BUILDER" DEBATE

XXIV.—STEEL MASTS AND OVERHEAD WIRES.

SIR,—We shall do an ill service to the cause of architecture if we adopt a reactionary attitude towards the scientific progress of our times. I feel that the attitude which "Positive" adopts is just this and no more, and as an architect I deplore such a restricted range of vision. We are frequently urged to "buy British," and while a few attempt the heroic effort, the greater number have to seek the cheapest market whatever the national mark. We have certain industries working short time and carrying a load of unemployment, while goods which these industries could produce appear at all hands from foreign sources, and not always from countries where the wage bill is lower than in this country. Is not one of the first reasons for this ridiculous situation the poor industrial equipment which we are content with, in our advanced age of industrial history? Is it not obvious that we could compete with all and sundry if we could equip ourselves with abundant and cheap power, served to every habitable corner of the country? This, I take it, is the chief aim of the electrical development schemes, and surely we are taking a grave responsibility when we do anything either to oppose or delay their fruition.

"Positive" suggests that we should "go slow" and save enough to do the thing monumentally. He does not appear to be alive to the peril in which this country stands in a rapidly developing world.

Our experts advise us that only by the overhead method can we hope to achieve electrical development to any considerable scale within our times. They produce illuminating figures to show the comparison between the relative costs of buried cables and overhead wires. Such evidence is conclusive, and as reasonable persons we are forced to accept it. I may confess that I have no love for these things as ornaments, and fear greatly that much which appeals to our sentiment may be lost by this means. But I must confess at the same time that I have more love for the masses who would work if they could, but who are not allowed to, than for the amiably artistic folk who are fortunate enough to catch their regular week-end view of the natural beauties of the countryside. I am convinced also that, unless we become very ruthless in our approach to the problem, there is every chance of a wise choice of routes for these overhead cables, which will leave our most beloved spots little disturbed, and offend but slightly in the more average landscape. After all, the most conservative and artistic among us do not propose the total abolition of our telegraph and telephone wires or our railways, though we have suffered them for generations. Why should we be in such dread of this latest contribution to our complete mechanical equipment?

"Positive" asks for permanent work, and has a horror of what he calls unprotected metal. I wonder if he has yet invented the everlasting material. Possibly he has, and may be taking this opportunity for getting it upon the market. But if he has, let him produce it without delay, for none of the rest of us have heard of it. I have seen granite walls disintegrated and collapsing. I have seen inert asphalt flats cracking and leaking. Every known material for building has a limited life, and needs constant supervision and periodical repair. In what way is the periodical painting of lattice steelwork different in principle from the maintenance of any other form of building, unless, of course, it is that the paint spray process is perhaps one of the easiest processes of maintenance we have at our disposal?

NEGATIVE.

ILLUSTRATIONS

PLATES

Unitarian Free Church, West Kirby, Cheshire.

This church was erected during 1928, on a sloping site between two parellel roads, with access from each. The exterior is faced with plum-coloured brick and grey roughcast, with green Westmorland slates on the roof. The interior has an architectural treatment of wall-panelling and flat pilasters, with a segmental plaster ceiling; in the chancel detached columns carry a semi-circular cornice and semi-dome, thus giving an apsidal effect on a rectangular plan. There are no visible windows facing the congregation, and the lighting is from the sides and back, but the chancel is partly lighted by small concealed windows at the base of the semi-dome. Heating is by recessed radiators under the window-sills, with a furnace-room under the vestry, where there is also a small chamber for the electric organ-blower. The side doorway to the vestibule (like the side porches in many of the cathedrals) is intended to be used when the prevailing westerly winds are too strong for convenient use of the main entrance. It is proposed eventually to complete the group of buildings by the addition of a church hall, with classrooms, kitchen, etc., on the adjoining part of the site.

The general contractors were Messrs. Brown and Backhouse, of Liverpool; heating by Killick and Cochran; electric lighting by W. Liley and Co.; and steel-cored lead glazing by C. E. Welstead, Ltd., of Croydon.

The architect is Mr. Ronald P. Jones, M.A., F.R.I.B.A., Stone Buildings, Lincoln's Inn, with whom was associated Mr. Eric Thornely, of Liverpool, as supervising architect for the erection of the building.

Sutton Coldfield Church.

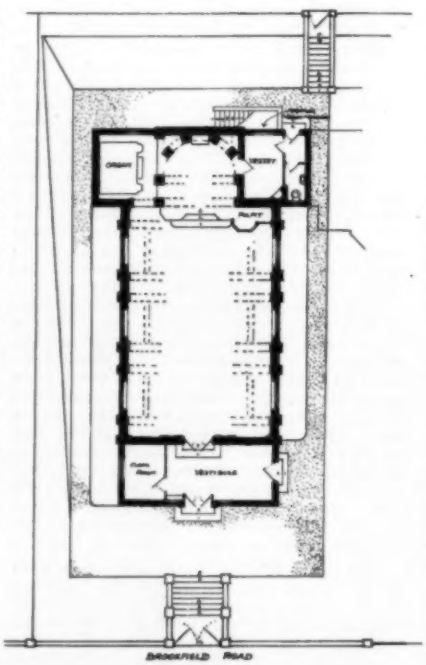
The Parish Church of Sutton Coldfield has just been reopened after the carrying out of a scheme of internal decoration designed by Mr. C. E. Bateman, F.R.I.B A., and executed by Mr. C. G. Gray. In describing this work, Mr. Kaines Smith (Keeper of the Birmingham Art Gallery and Museum) observes: "The modern hammer-beam roof has been endued with a richness and freshness which make it, far more than it has ever been before, a proper culmination to the warmth and dignity of the redstone walls; and the vigorous scheme of scarlet and white is one which, even in all its newness, is harmonious with its surroundings. The addition of the figures of angels to the terminals of the brackets gives a lightness which the roof never possessed before; the shields of the Apostles which they carry strike a true mediæval note of symbolism, and a gay naturalism of the figures breaks the rather rigid formality of the design. The chancel roof is decorated in a scheme of cooler colour, and at the other end, in the roof of the tower, we pass in the comparatively dim light suddenly to a cold quietude of green, black and white, which is singularly refreshing. In the north chapel is concentrated a magnificence and a wealth of colouring and raised design in the ceiling, with its formal panels to the westward and its series of the Angels of the Magnificat at the eastern end. This chapel, enclosed as it is by a screen very beautifully and conservatively designed, in harmony with the Laudian panelling long since brought from Worcester Cathedral to this church, makes a brilliant little casket of colour. . . ." The building work was carried out by Mr. John Wood, of Sutton Coldfield.

A Seaside House in Sussex.

This house has recently been built on the Sussex coast as a holiday house. It is situated on a level site adjoining the foreshore, from which it is only separated by a bank covered with tamerisk and a ditch. The site influenced to a considerable extent the design of the house, it being felt that a long simple house was most suited to the position. To give access to the house from the sea a gap was cut in the bank opposite the loggia and an oak bridge constructed across the ditch. Internally the floors of the hall and best bathroom are covered with rigid rubber floor tiles. The floors of the sitting rooms are laid with oak boarding and the floors of the kitchen, maids' sitting-room and second bathroom with "Dolomeut." The walls of the hall, landing and chief rooms have the plaster finished with a wood float to a rough granular surface distempered cream. The walls of the kitchen, scullery and bathrooms are tiled. In the dining-room the floor joists over are exposed. The other ceilings are plastered and finished the same colour as the walls. The first floor corridors are vaulted in plaster. A loft ladder has been fitted to give access to the roof. All fireplaces are faced with red bricks and tiles. In the hall is an anthracite stove. The bedrooms have built-in dressing-tables and lavatory basins and are well provided with cupboards. In the roof are tanks for well and rainwater. A dual system of water supply has been arranged so that either kind of water can be used in the domestic hot-water system. Externally the plinth and chimney-stacks are faced with local stock bricks picked for a variety of dark colour and pointed with a flush rough joint. The plinth bricks are ordinary thickness, but for the chimney-stacks 2 in. bricks were used. The walls above the plinth are roughcast and distempered cream. The loggia columns are of Portland stone with an oak beam over. All the external joinery, including the woodwork of the eaves cornice, is of oak. The window-sashes are of oak with bronze fittings and the French casements of bronze throughout. The front door has a shell type hood with carved brackets, into the carving of which seaweed has been introduced. The roofs are covered with old tiles.

The builders were Messrs. Walden and Son, of Henley-on-Thames, and the chief subcontractors were:—Shanks and Co., sanitary goods; Elliott's, of Caversham, entrance porch; The Heaped Fire Co., fireplaces; Bell's Poilite and Everite Co., Ltd., rubber floor tiling; British Dolomeut Co., Ltd., composition floor; Hope and Sons, Ltd., bronze French windows; United Water Softeners, Ltd., water-softening plant.

Messrs. Willcocks and Greenaway are the architects.



Plan of Unitarian Free Church, West Kirby, Cheshire.

All Saints' Hall, Reading.

All Saints' Hall and Institute was recently erected at the west end of Reading by the congregation of All Saints' Church to meet a long-felt want in the large residential district served by their church as a centre for parochial activities. The building is Georgian in character and of a quiet and restful appearance. The hall, which has a maple dancing floor, will seat 350 persons, and is fitted with a stage with a proscenium. Behind the stage is a communication passage, a valuable asset for theatrical and other performances. At the rear of the hall are cloakrooms and under the stage is a chair store. In the wings are a billiard-room, committee-room and kitchen, etc. Externally the building is faced with hand-made sand-faced mixed grey bricks with red brick dressings. The main entrance doorway and other stonework is of cast Portland stone. The roofs are covered with stained local tiles. Internally the walls of the hall are faced with local red bricks. The plaster vaulted ceiling springs from a moulded cornice and is divided by moulded ribs formed under the steel roof trusses. An efficient system of central heating has been installed and the building is fitted with electric light throughout, including removable footlights for the stage.

The general contractor was Mr. E. C. Hughes, of Wokingham, and the chief subcontractors were:—Messrs. S. and E. Collier, Ltd., Reading, facing bricks; The Gloucester Stone Construction Co., cast stone; David Rowell and Co., steel roof trusses and ventilating trunks; F. G. Alden, central heating; F. C. Barnard, electric lighting; The Stourbridge Glazed Fireclay Co., and Callas, Sons and May, sanitary fittings.

Messrs. Willcocks and Greenaway are the architects.

Branch Art Gallery, Cannon Hill Park, Birmingham.

The assessor's award in this competition is given on page 950. We illustrate in this issue the first premiated design, by Messrs. A. Edgerton Leeson & A. L. Snow, A.R.I.B.A.

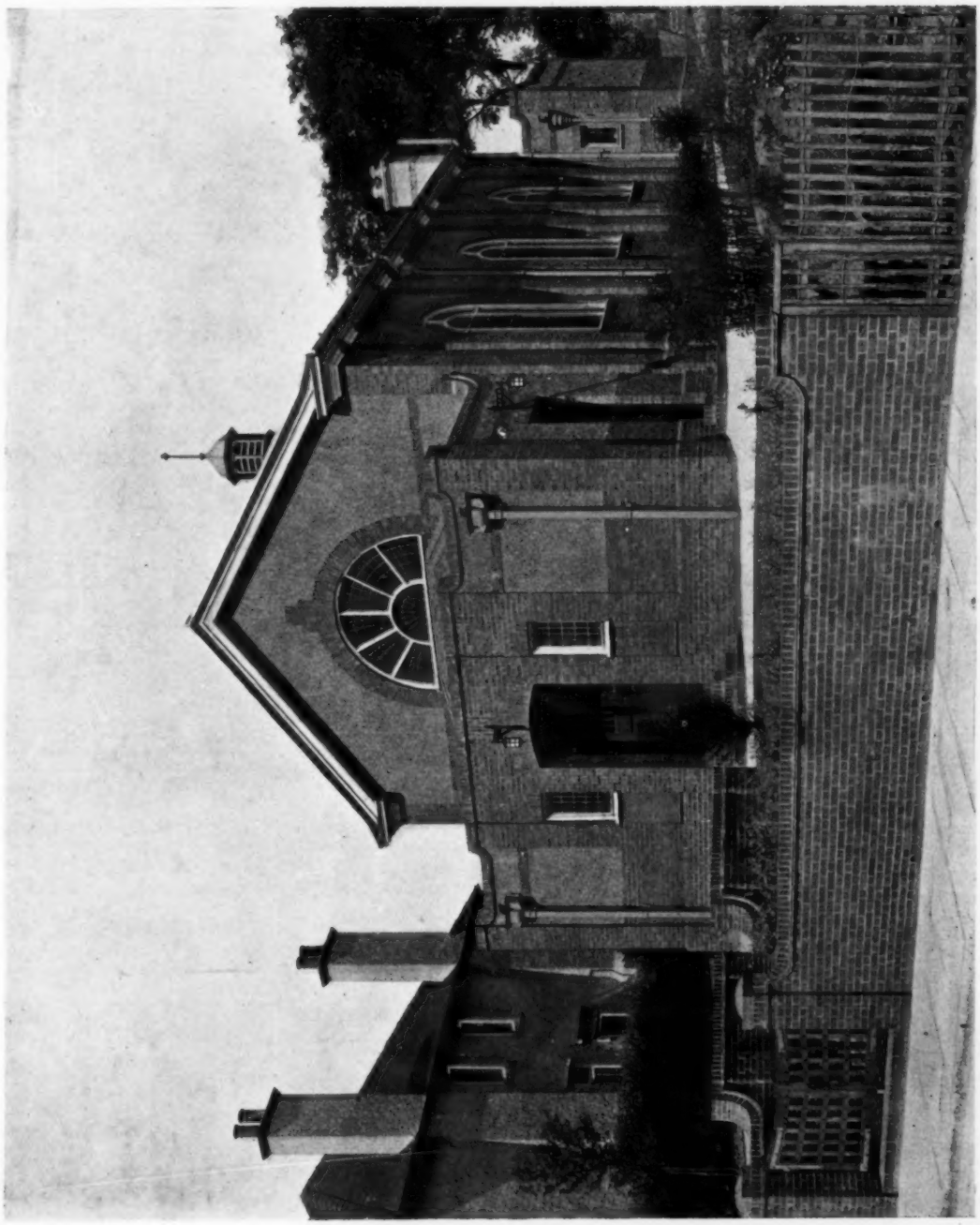
Extension to Finchley Dance Hall.

The existing large hall of this building has recently been extended by the addition of two smaller superimposed halls connected to the old premises. The lower hall is primarily used for receptions, meetings, etc., and the upper hall for dances. A special maple, springy dance floor has been provided in the upper hall, and the floor is so constructed that the dancing cannot be heard from the lower hall. Both halls have been decorated throughout on modern lines in Marb-l-cote treated in bright colours. The lighting to the dance floors is concealed behind the four large ornamented laylights in the ceiling, different coloured lights being used and controlled by dimmers. The stage decoration is in Marb-l-cote in colour, and the oak skirtings, doors and stage front have been finished black, with the grain filled in with plaster of Paris. The upper hall is treated in different shades of pink on a primrose background, gold, and gold scumbled in umber. The lower hall is treated in pink, with the wall decoration in emerald green lined with gold, the caps emerald and gold lined in black, with piers emerald stippled on white. The contract price was £12,247.

The general contractors were Messrs. Mattock Bros., and the following were sub-contractors.—Smith Walker, Ltd., steelwork; John Knight and Sons (Chelsea), Ltd., heating; Ebners, flooring halls; F. A. Hughes and Co., Ltd., flooring crush halls; C. Cooper and Co. (London), Ltd., electric wiring; Best and Lloyd, Ltd., electric fittings and ornamental glass; Williams and Williams, Ltd., metal casements; Hampton and Sons, Ltd., decorations; S. W. Farmer and Son, wrot ironwork; Richard Whittington and Co., Ltd., ventilation; Marbello, Ltd., terrazzo; Patent Victoria Stone Co., Ltd., cast stone; Doulton and Co., Ltd., sanitary fittings.

The architects are Mr. J. Raworth Hill, in association with Messrs. Yates, Cook & Darbyshire.

(*Continued on page* 969.)

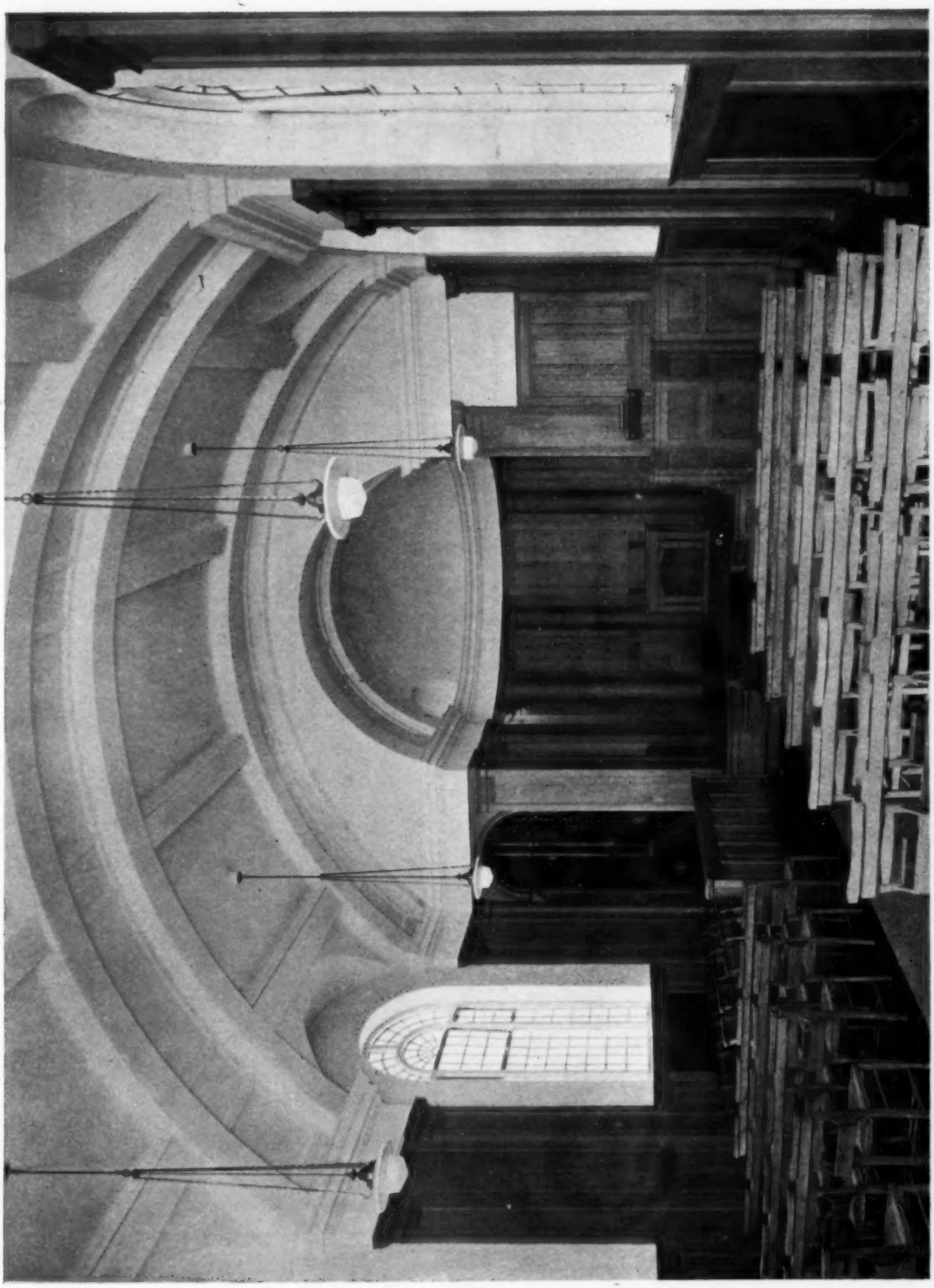


Unitarian Free Church, West Kirby, Cheshire.

MR. RONALD P. JONES, M.A., F.R.I.B.A., Architect.

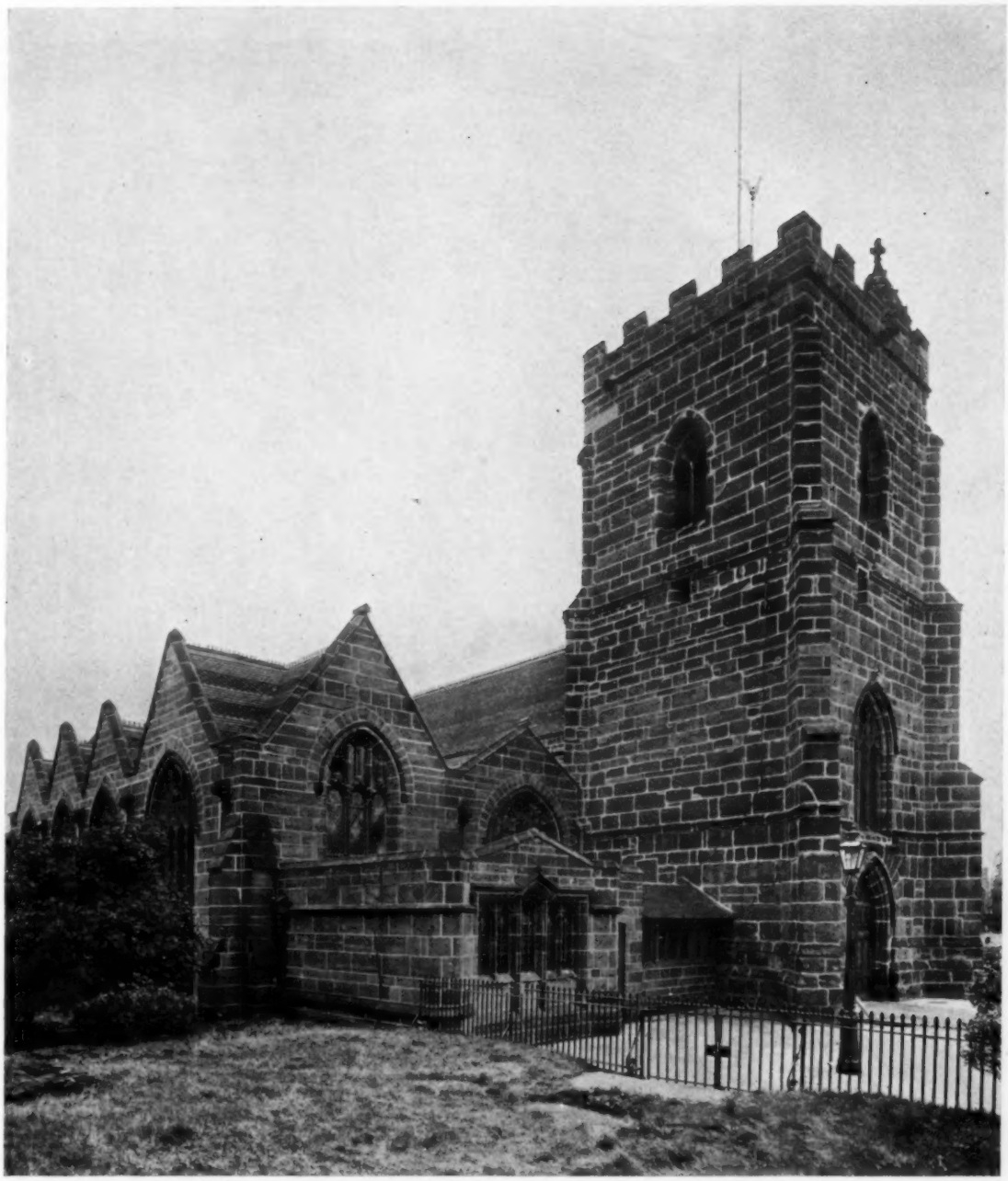
MR. ERIC THORNELY, Supervising Architect for erection of building.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



Unitarian Free Church, West Kirby, Cheshire: Interior.
MR. ROSALD P. JONES, M.A., F.R.I.B.A., Architect.
MR. ERIC THORNELY, Supervising Architect for erection of building.

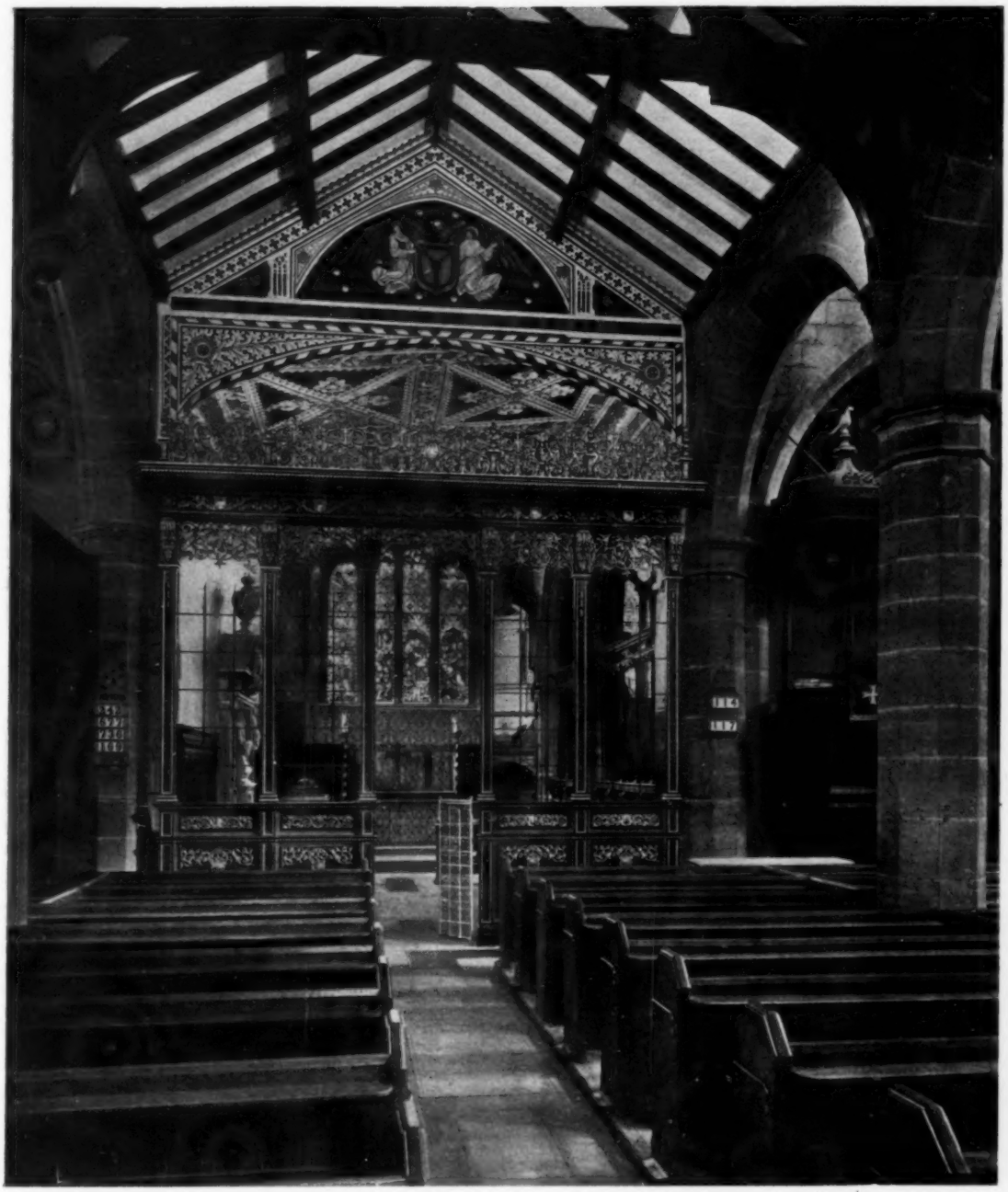
THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



Sutton Coldfield Parish Church: General View of Exterior.

Interior Decorations designed by MR. C. E. BATEMAN, F.R.I.B.A., and executed by Mr. C. G. GRAY.

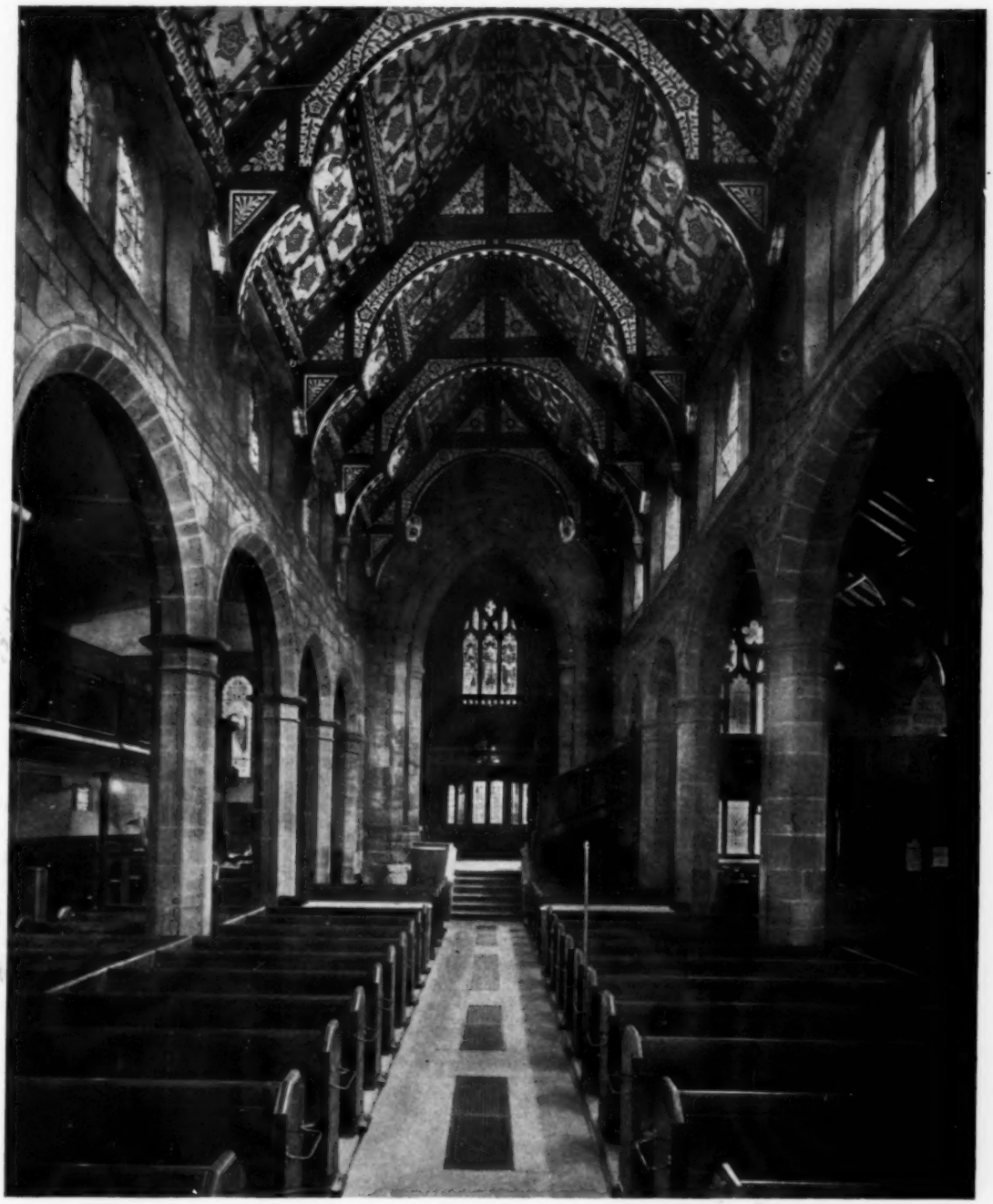
THE LIBRARY
OF THE



Sutton Coldfield Parish Church: Detail of Screen.

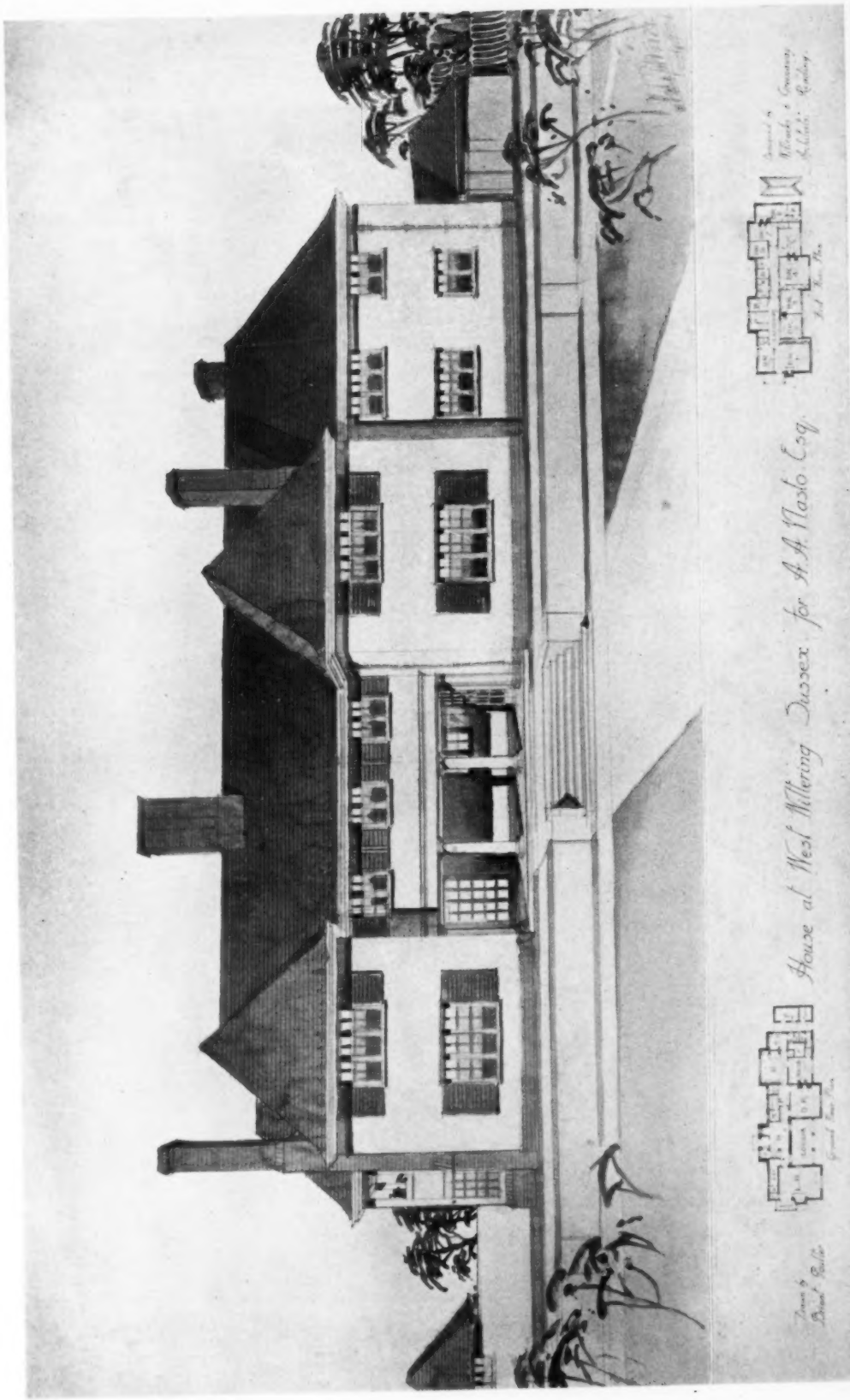
Decorations designed by MR. C. E. BATEMAN, F.R.I.B.A., and executed by MR. C. G. GRAY.

THE LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA



Sutton Coldfield Parish Church: The Nave.

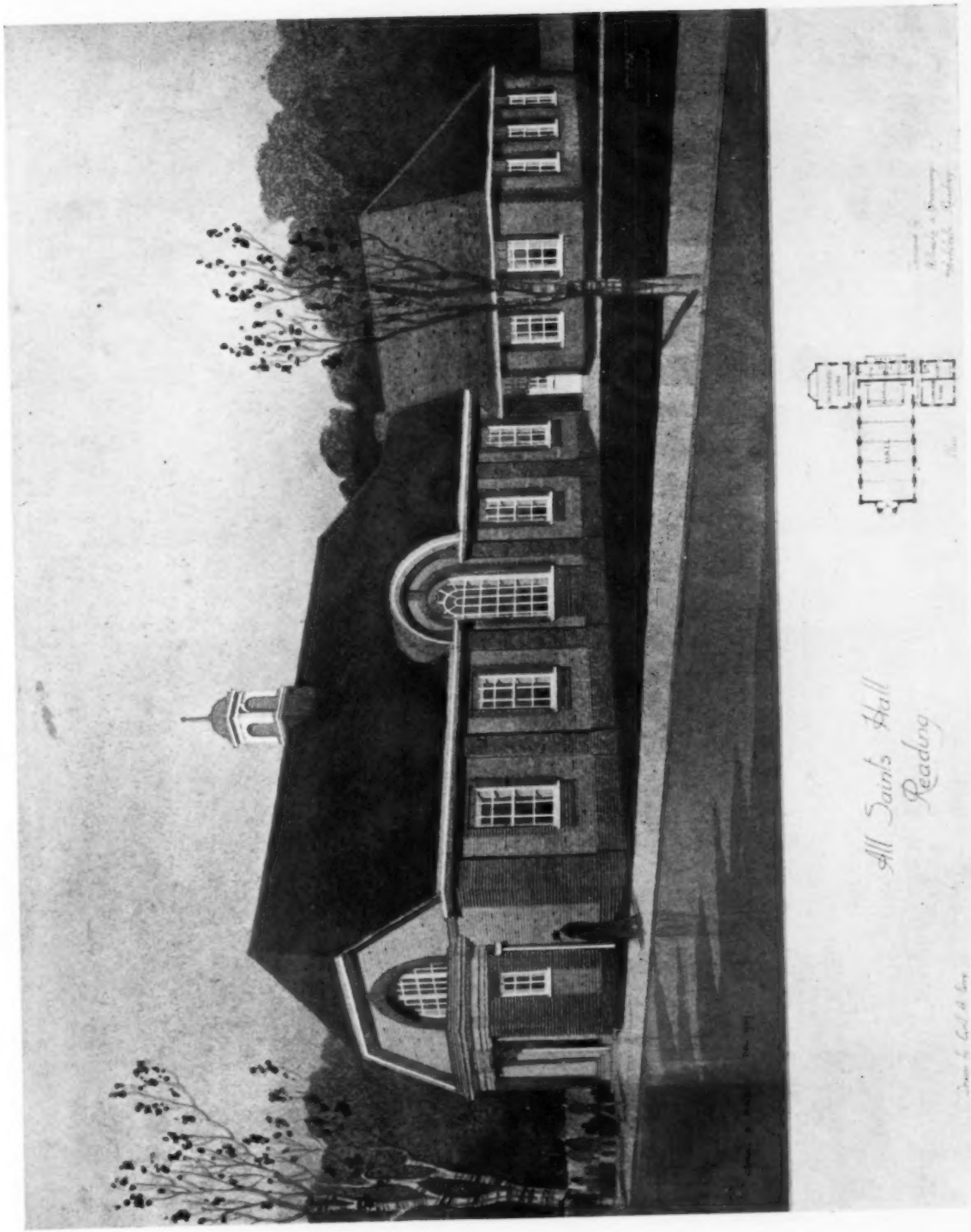
Decorations designed by MR. C. E. BATEMAN, F.R.I.B.A., and executed by MR. C. G. GRAY.



R.A. EXHIBITION, 1929.

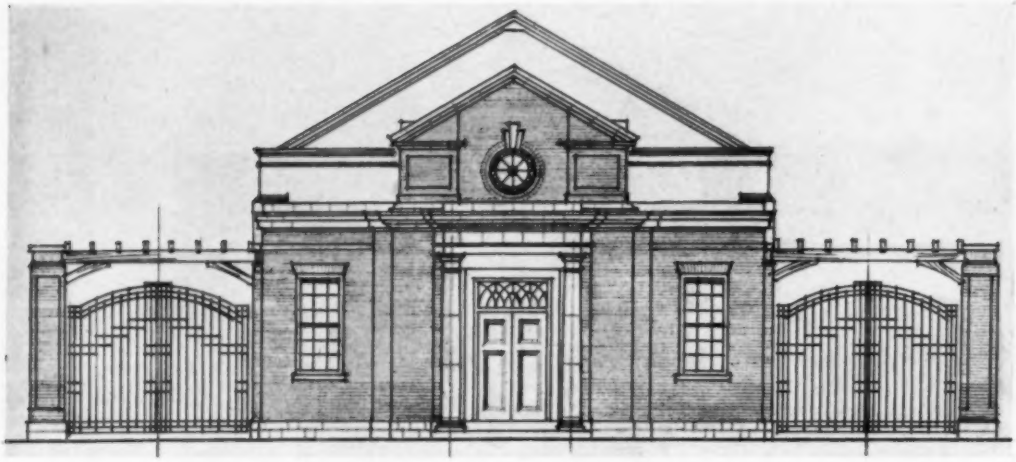
MESSRS. WILLCOCKS AND GREENAWAY, Architects.

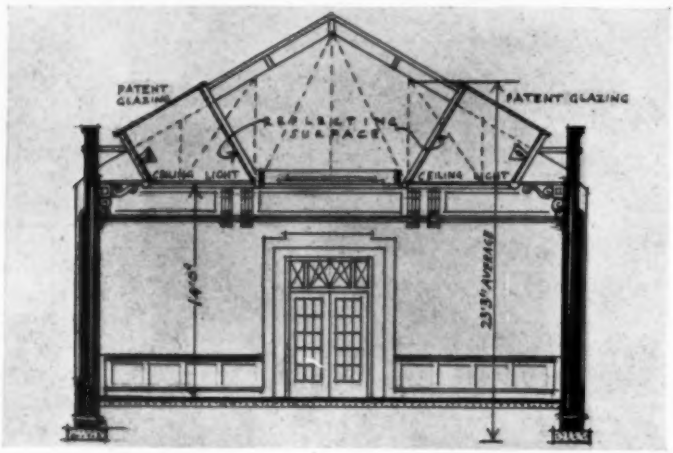
THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

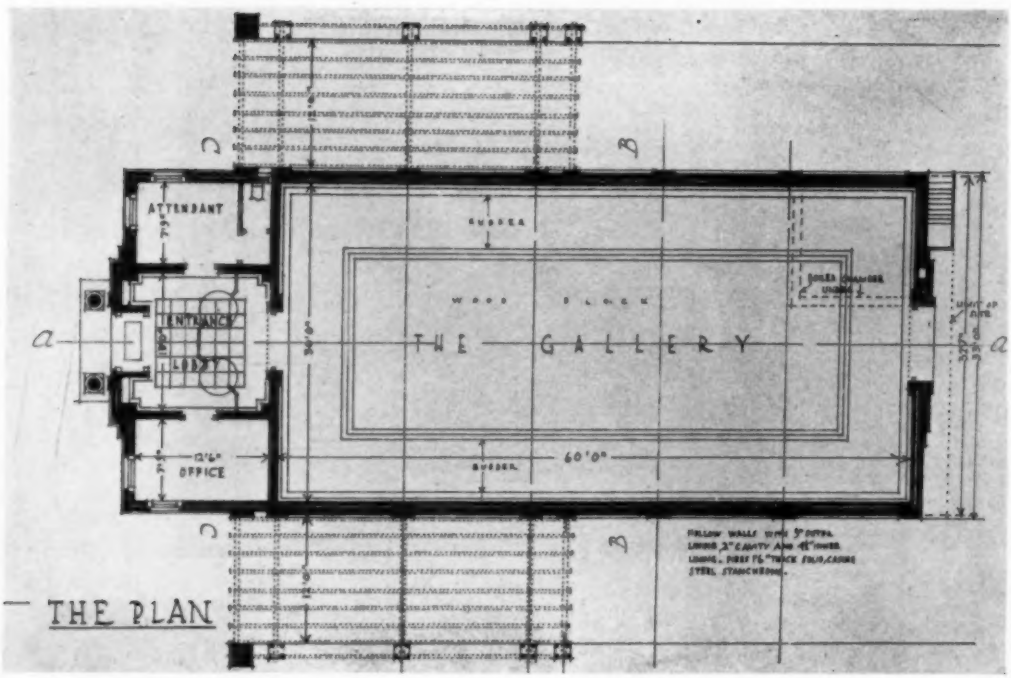


MESSRS. WILLCOCKS AND GREENAWAY, Architects.

R A EXHIBITION, 1929

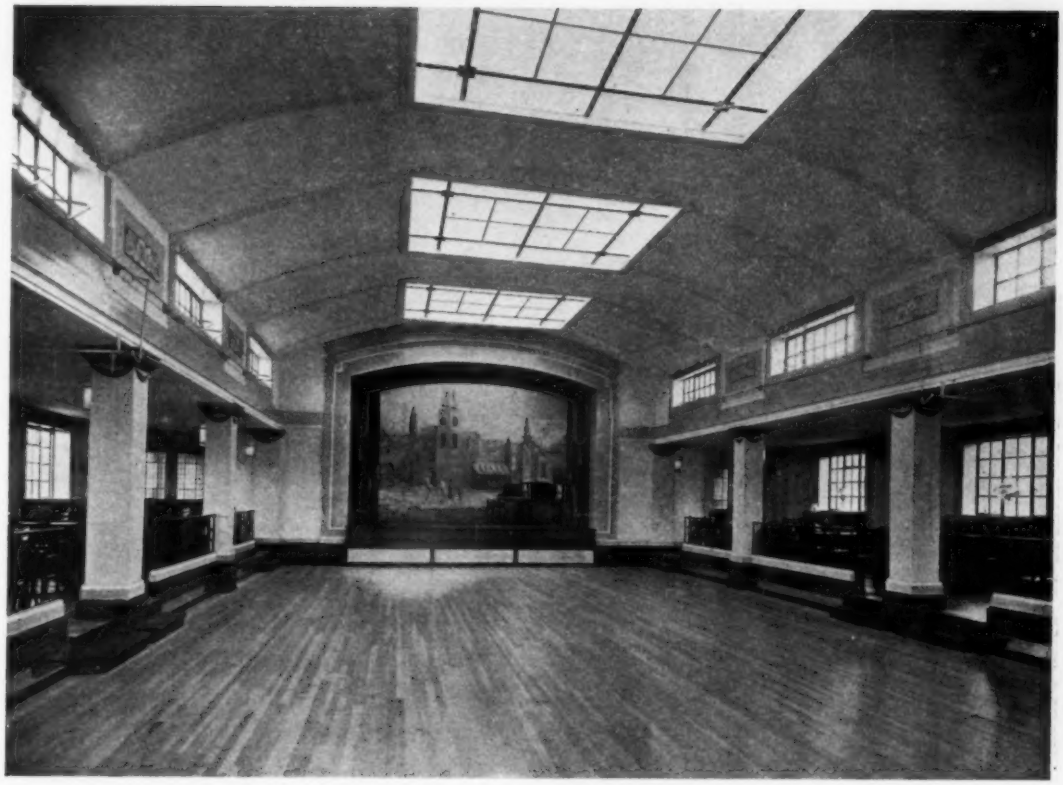




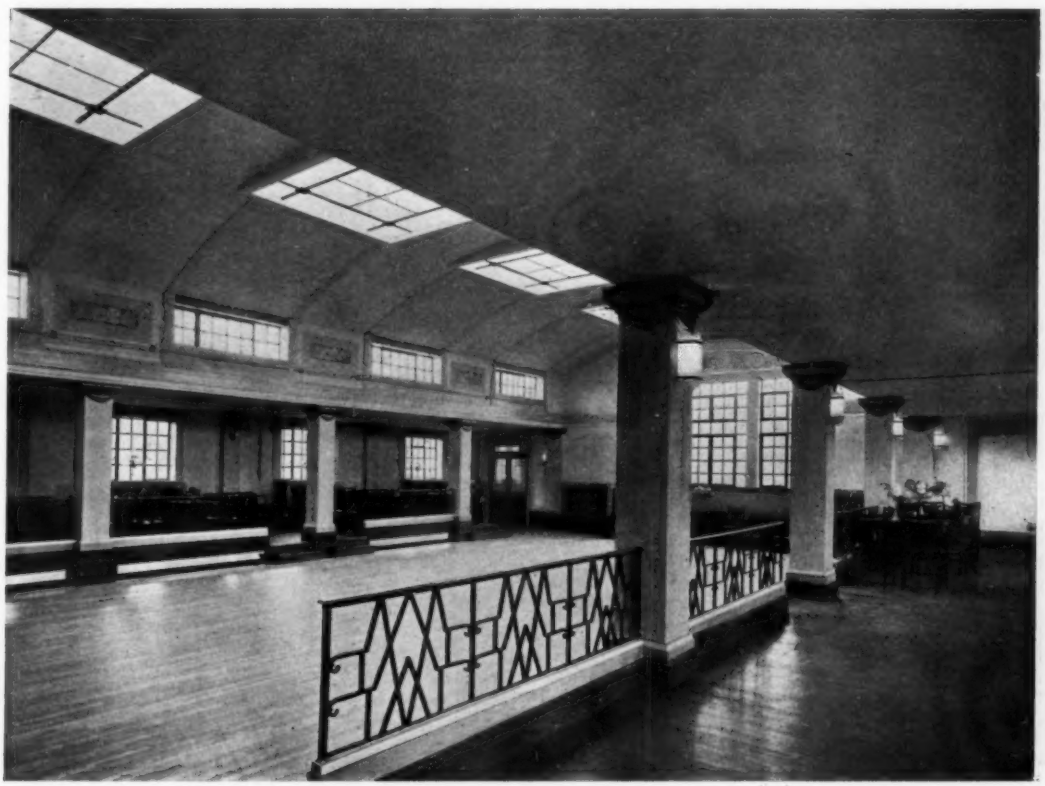


Branch Art Gallery Competition, Cannon Hill Park, Birmingham: First Premiated Design.

MESSRS. A. EDGERTON LEESON and A. L. SNOW, A.R.I.B.A., Architects.



UPPER HALL, LOOKING TOWARDS STAGE.



GENERAL VIEW OF UPPER HALL.

Extension to Finchley Dance Hall.

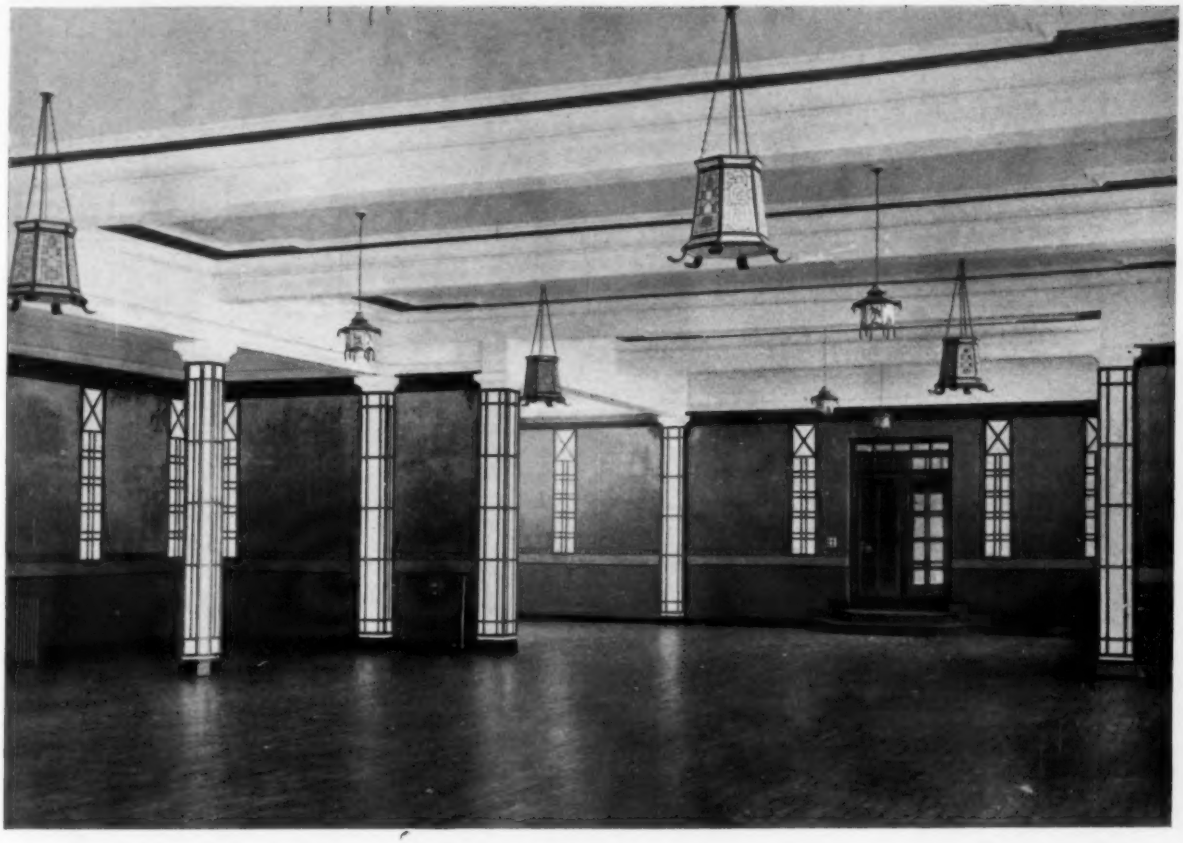
MR. J. RAWORTH HILL, in association with MESSRS. YATES, COOK & DARBYSHIRE, Architects.

LOWER HALL.

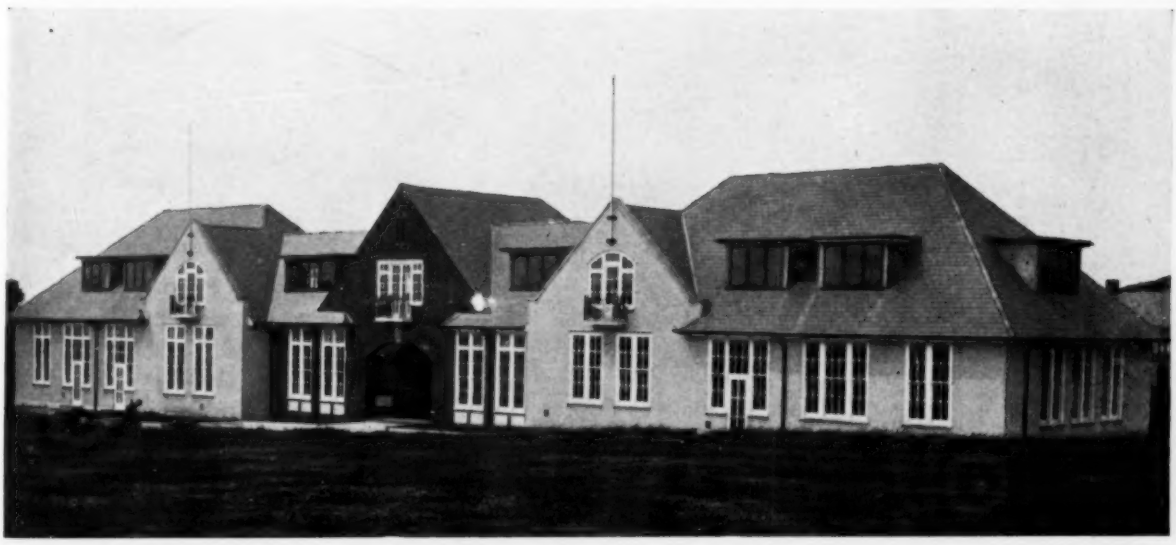
CRUSH HALL TO UPPER DANCE HALL.

Extension to Finchley Dance Hall.

MR. J. RAWORTH HILL, in association with MESSRS. YATES, COOK & DARBYSHIRE, Architects.



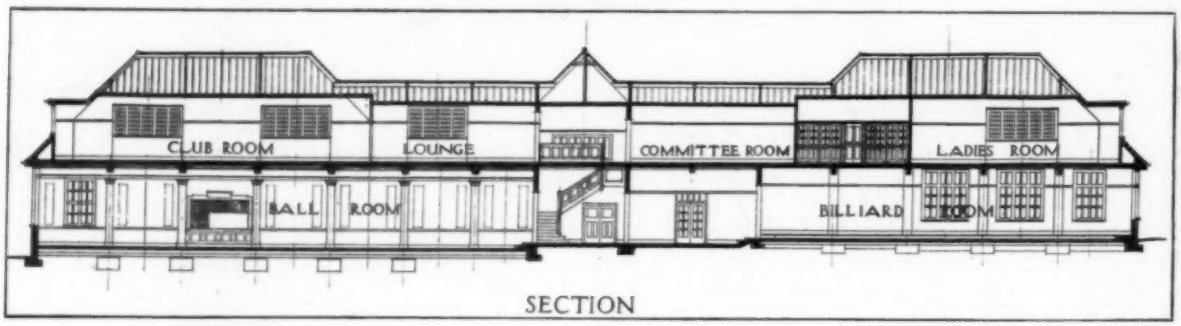
BALLROOM.



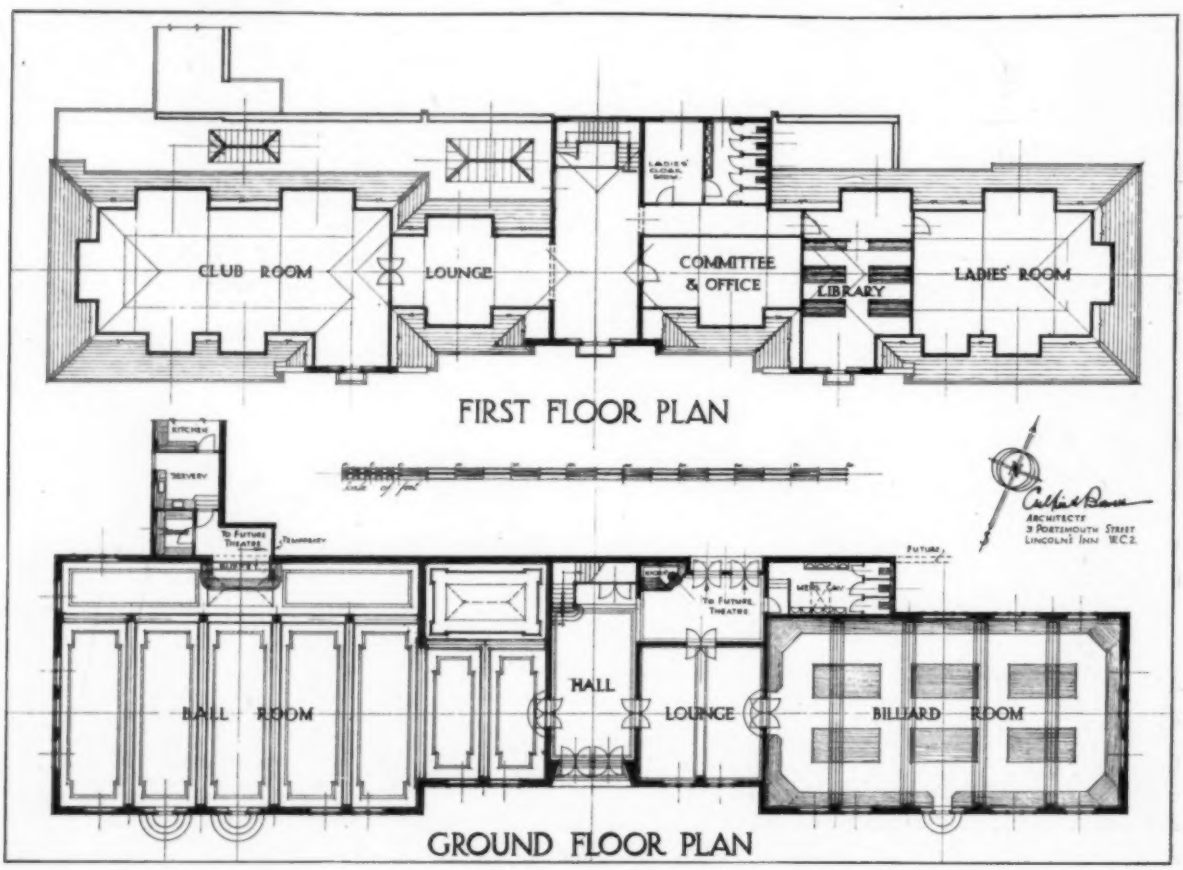
Club and Institute, Kenfig Hill, Glamorgan.

MESSRS. EWART G. CULPIN and R. S. BOWERS, Architects.

SOUTH ELEVATION



SECTION



FIRST FLOOR PLAN

GROUND FLOOR PLAN

Club and Institute, Kenfig Hill, Glamorgan.

MESSRS. EWART G. CULPIN and R. S. BOWERS, Architects.

MORE GREEK STUDIES—X

BY W. R. LETHABY.

THE IONIC ORDER.

Naucratis I.

THE valuable collection of fragments from two little Ionic Temples at Naucratis, in Egypt, has never been adequately published, although they are of considerable importance for the history of Greek art. In *The Builder*, 1920, I suggested some restorations, and recently the fragments have been illustrated and described in the new *Catalogue of Archaic Sculpture*, 1928

The most important of the stones are parts of an archaic Ionic "order." One piece has several large units from the *echinus*, or "egg and tongue" member of a capital. I pointed out that the evidence which it bears shows that this was broken off from the front

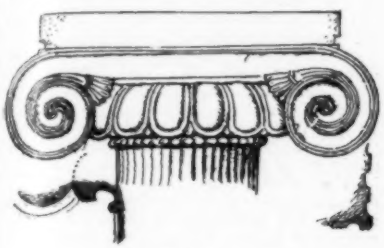


FIG. 1.

or back of the volute member, and that six "eggs" (or more properly petals) were on front and back of the capital. In the new *Catalogue* it is supposed that "the volute cushion was carved apart from the *echinus*," but this must be a misapprehension. The observation that a group of six petals (or "eggs") was broken away from the volute member settles the main characteristics of the capital (Fig. 2). Were it not for this we might think, as was first supposed, and accepted by Perrot and Chipiez, that a ring of petals was complete under the volute member, and this, indeed, may still be the meaning of the *Catalogue*. Comparison, however, of our fragment with the almost contemporary capitals of Ephesus and Delphi (Fig. 1) quite settles the question.

Further examination of the Naucratis fragments shows that twenty petals would have been required to fill out the whole circle; this gives four under each of the volute rolls and defines the size of the volute member of the capital, which would have been very narrow as compared with its length. With six petals both at front and back there would be no central petal (or "egg"), but a central division, as at Ephesus. Mr.

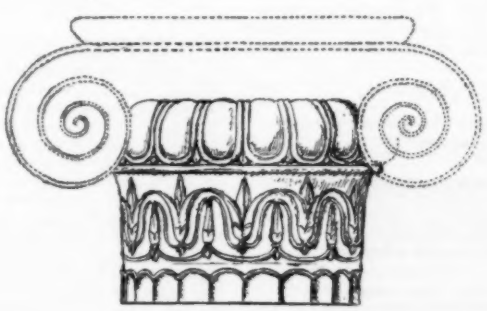


FIG. 2.

Spiers, who made an excellent restoration of the capital, only gave five petals, and hence a central one to the front. He showed, also, a similar scheme in a drawing of the fine archaic capital from Delphi, but this, too, is a mistake; I sketched this capital in Paris, and there were six petals (Fig. 1; and compare Noack's *Baukunst*). In the archaic type of Ionic capital this arrangement seems to have been quite a custom; this, and the very narrow volute member, may, I think, have sprung from having four-way capitals at angles, as explained in my notes on the Crœsus temple at Ephesus.

The Naucratis capitals do not seem to have had carved palmettes falling on the petal moulding from the angles where the volutes come against it; possibly there were such on the vertical faces of the volute member. Except for this uncertainty, the capitals could be confidently restored in general resemblance to the capitals of Ephesus and Delphi (Fig. 2). My restoration, which has been made independently, agrees generally with that given by Anderson and Spiers. In that, however, the lotus band on the shaft is not properly related to the flutes, and the upper part of the flutes are shown to terminate "in a slightly projecting leaf." Of this last detail it is said that "the same treatment is found in a much later example—the Monument of Lysicrates." This over-emphasises the narrow fillet at the head of the flutes. The shafts had twenty-four flutes and were about 18 in. diameter at the top.

Recently a fragment from the top of a shaft, having an intricate fret carved on it, has been put with the rest (Fig. 3). For many years it has remained in the basement of the Museum. In the new *Catalogue* it is illustrated, but classed with the remnants of the later temple. The material, however, seems to be exactly similar to the limestone used in the earlier structure, and if the diameter of the curve indicated by the segment does not make it improbable, I see no reason why it may not have belonged to that work. Under the fret are traces of flutes, which were shallow, like those of the early columns. The raised surface of the fret is scored over with lines which indicate how the pattern was conceived. The alternate sunk parts seem to have been coloured with a similar red to that on other fragments of the limestone series. In the collection of early pottery from Naucratis, frets, lotus patterns, and borders of petals ("egg and tongue") may be seen which are very similar to the carved details of the limestone columns (Fig. 4). Elaborate fret patterns occur on the great Clazomenæ sarcophagus in the Museum, c. 600 B.C. There were at least two varieties of the lotus-pattern bands on the columns, and the fret design might have been made a third. A fourth type was simpler and had only a large astragal moulding at the top, without any ornamental necking band. One or two small pieces of this are shown in the Museum, and a large portion of the upper drum of one such column was figured in the Egyptian Fund Report, when the account of the excavations on the site was first published. These fragments show quite certainly that this large astragal member was at the top of some of the columns. Such variation in the details of columns in early Ionic works has been made known to us by the capitals, bases and shafts of the Crœsus Temple at Ephesus. The columns at Ephesus had sharp-edged flutings, the shafts were expanded at the top in a graceful curve, there were large astragal members beneath the capitals, and a chief element in the capitals was a large "egg and tongue" member. All these characteristics are found in the frag-

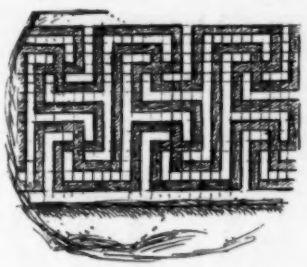


FIG. 3.

ments from Naucratis, and it may not be doubted that the lost parts of the capitals from the little temple resembled what we have from Ephesus. In these latter the important *echinus*, or petal member ("egg and tongue"), has six petals showing on the front of the capitals. One of these Ephesus capitals at the Museum has the whole circle regularly continued around under the volutes; there were twenty in all, six front and back, and four under each volute.

According to Herodotus, Amasis, king of Egypt (c. 568-525), gave Naucratis to the Greeks in Egypt, but it has been argued that the archaic temple must be earlier than this time. In the new *Catalogue* the date of 570-560 is suggested, and this, I believe, would suit the evidence. Mr. Dinsmoor has compared our fragments with the work of the earliest of the Treasuries at Delphi, which, he thinks, might be dated c. 565.

In the former study of the evidence I sketched a restored plan for the temple and gave some details of the bases of the columns (*The Builder*, May 7, 1920). These

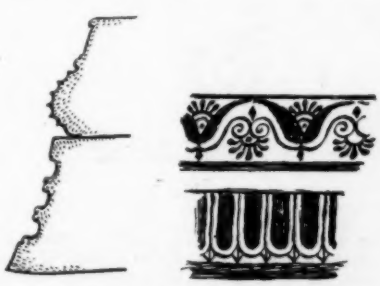


FIG. 5. FIG. 4.

and other early Ionic bases are spreading and much piled up, a type which suggests that the Ionic column was first developed in isolation for such purposes as the example found at Delphi and a great number which appear on vase paintings.

Ionic columns represented on the Clazomenæ sarcophagus, which served as goal-posts for chariot races, have bases with wide spreading plinths (Fig. 12, C). The lower part of the columns at Naucratis were expanded in a slightly conical form towards the bases and were not fluted like the shafts. This characteristic—which we may call a sur-base—appears in a less marked form on the

great bases of the temple of Hera at Samos (Perrot, Vol. VI, Fig. 269). It appears again in bases found at Motya (Whitaker), Fig. 5. These indeed are so like the Samos base that there must be some direct relation between them. The sculptured drums at Ephesus fall in with this tradition.

The Ionic column in its origin had something single and sacred in its nature. Grave steles with volute and palmette tops were related to these columns. The many small mouldings of early Ionic bases at Naucratis and elsewhere suggest a derivation from a type produced by turning in a lathe, and the fragments of the limestone bases at the Museum have striations as if produced by rotation. The member of the base which is rounded vertically (the torus) resembles bases which have been found in Assyria and is doubtless of Eastern origin.

Naucratis II.

The archaic temple at Naucratis was rebuilt about 525 B.C., and several fragments

FIG. 6.

of the newer structure are in the Museum. These are of marble, and so closely resemble two Treasuries at Delphi, especially that of Siphnos, that I could think that these works were by the same building "firm." In 1908 I made a restoration of an egg-and-tongue course of the temple, and in 1920 I suggested restorations of some other details in *The Builder* (June 20). One characteristic of all Greek Ionic works which has not been appreciated is that some variation seems to have been customary in the details. Such variations appear here in these angles of the carved mouldings. I have just observed that another angle may be restored from two tiny fragments (Fig. 6, B), and I associate with this a revised version of one which I misrepresented before (A).

A little piece of bead and reel with the termination of some flutes on a round plan looks like the necking of a column, but it is

FIG. 7.

of limestone. Further careful examination of the curves of this, the fret band (Fig. 3), and the other details in comparison with the Delphi monuments would carry our knowledge further, indeed a fairly probable restoration of this little temple might be arrived at.

Among these fragments is one which is described in the new *Catalogue* as part of a "twisted knot in relief around a circular sunken ground" (B, 408). Two other tiny pieces of beads and fillets look as if they might have been associated with this "knot," of which I give a restoration in Fig. 7. As I pointed out in 1908, a similar knot appears on a capital found at Delos. Our fragment must have belonged to some level band. I cannot think that it is earlier than the fourth century. Some fragments in the Naucratis collection are obviously of late work; one now in the showcase is a fragment of the roll of an Ionic capital. In *Greek Buildings*, 1908, I gave a sketch of the volute roll of another late capital. In the *Catalogue* this is stated (p. 176) not to be from Naucratis, but I may explain that it was quite small and even so much restored by me; it may be in the basement.

FIG. 8.

In this example the ends of the rolls were carved with palmettes springing horizontally from a central band. In the collection at the Louvre is a much more important capital of a similar type which came from the Rotunda of Arsinoe at Samothrace: Fig. 8 is a sketch made from the original.

Samos and Sardis.

Great Ionic temples in these cities seem first to have been made known by British travellers. Both have lately been fully explored and an outline of their characteristics may be found in Professor Robertson's *Handbook*. Samos was visited by Wood, the explorer of Palmyra, in 1750, and his observations and some sketches are preserved in his MS. at the Hellenic Society. At this time parts of 17 columns were standing, and from his measurements it is possible to reconstruct the plan. The columns were 6 ft. 1 in. diameter. The bases were drawn. Wood also sketched the echinus member of the capitals; it was attached to a necking band on the top of the shaft which was uncarved but doubtless painted. From details given in Vol. I of *Antiquities of Ionia* I sketched a restoration of the capital in *The Builder*, 1920. It had much in common with the early capitals of Naucratis's Ephesus and Locri. On his sketch of the "egg and tongue" member Wood has the note "21 total," which must be a mistake; *Antiquities* give 22. As there was a bed above this member the petals or "eggs" must have been complete, the volutes being entirely free from it. The channel of the volutes was convex as at Ephesus and Locri. Probably, therefore, the Naucratis volutes were similar. I wish some student would carefully restore these early Orders from all the data available.

Sardis was also visited by Wood. Here the Ionic temple was also very big but of late work. Several columns were standing, and part of the cella wall with the anta and its capital. The columns were 6 ft. 4 in. (6½ Greek feet) in diameter, that is, a few inches greater than those of the Hellenistic temple at Ephesus and the capitals were much enriched. A drawing of the anta capital is a record, I think, of a member which has been lost (Fig. 9). For the results of the recent American excavations see the admirable book by Mr. Howard Crosby Butler.

(To be continued.)

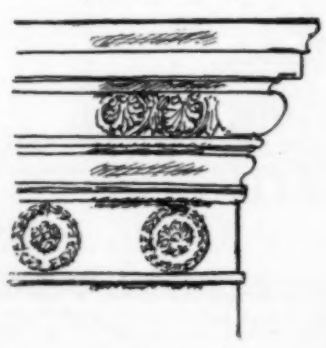


FIG. 9.

MODERN SCHOOL BUILDINGS*

IT was no less a man than Sherlock Holmes who, some forty years ago, impressed upon his obtuse friend the tremendous influence for good that would be exerted by the schools. Since those days the science and art of school design has advanced rapidly, and the post-War period has been responsible for systematising and consolidating the advance made. The different branches of scientific architectural design are becoming more and more intricate, and each demands its own expert knowledge and its own recognised standard text-books for reference. Sir Felix Clay's book was first published in 1902, and the new third edition, embodying modern developments, has necessitated a complete re-writing of the text, and an almost completely new set of illustrations. It is of interest to compare the development of housing, hospitals and schools in the years immediately preceding the War. All have been profoundly influenced by the modern demand for light, sun, and fresh air, in which demand the medical profession has supported the natural inclinations of mankind. In pre-War housing, these were excluded through economic forces that demanded the minimum of ground frontage for each house; in the schools they were not limited by economic pressure but by the theory of planning which produced the maximum of concentration in the form of a central hall, with the classrooms opening off it, actually a more expensive method than the modern straggling plan, with through ventilated classrooms, which has a great deal in common with the modern hospital. This open development appears, on the face of it, to be the correct solution to the school problem, since if such a plan is found the most efficient in restoring health to a sick community, it must also be the best to enable a healthy community to remain well. Precisely as animals will huddle together in search of warmth, so will human beings huddle their buildings in that search until some efficient method of warming the more exposed type of building has been devised; the desire for warmth is responsible for the unnatural lack of ventilation. The solution in modern low-pressure hot-water circulation has now been brought nearly to perfection, and has thus removed the main difficulty in the way of open planning. This important question is thoroughly thrashed out and we get an idea of the complications involved when, in quoting Mr. Barker, the author tells us that "if a room temperature is 60 degrees and the walls 40 degrees, it will actually feel colder than if both were 50 degrees." Such paradoxes abound now that scientific experiments have been carried out concerning the physiological effects of heating and lighting. Another example may be demonstrated by the astonishing relief we experience in a close atmosphere when we merely move the supposedly "bad" air; thus we discover that the lady's fan is a scientific instrument and not a delusion for providing imaginary fresh air. Light involves us in considerations of glass that transmits ultra-violet rays, and its use in schools. It is a curious fact that children do not normally enjoy sitting in the sun as they would in after years, and even if they did it would be impossible to give more than a very small proportion of a class any direct benefit from the sun.

It would seem unlikely that any such violent change in design as that which characterised the 1907-22 period will come about in the near future. We may, in fact, regard the present as a "critical point" for taking stock of where we stand. Further advances will be made in applied acoustics, in electric heating, and in details of equipment, but in general principles and as a trusty guide to architect and layman alike, this book should hold the field for a generation.

* MODERN SCHOOL BUILDINGS. ELEMENTARY AND SECONDARY. By Sir Felix Clay, Bart. (London: Batsford.) 1929. 25s. net.

ILLUSTRATIONS

(*Continued from page* 954.)

Club and Institute, Kenfig Hill, Glamorgan.

The illustrations of this building, which is for the Kenfig and Pyle Welfare Association, show the first portion of one of the South Wales schemes initiated by the Industrial Welfare Association, a body representing both employers and employees, and doing much good work in districts where social amenities are few. The present building serves a wide radius: it is situated at the top of a slight hill north of Pyle Junction on the G.W.R., with its south front overlooking its own playing-fields, and is planned to link up with a future theatre or concert hall which will be next the main road. Externally, the building is roughcast with the exception of the brick-faced central gable and entry, and roofed with local slates. The windows are mainly double-hung sashes owing to the exposed position, but the dormer-lights are metal casements with leaded glazing and wood frames, and the dormers are painted grey to tone with the roofs. Advantage has been taken of a fall in the ground from east to west to obtain extra height in the ball-room, which has a buffet connected direct to a kitchen-wing (only partly shown) arranged to serve also the future extension. On the other side of the central entrance there is a lounge or club-room and a six-table billiard room, men's lavatories, and an approach and pay-desk to suit the future extension. On the first floor are various club-rooms, including a special one for ladies and a fitted lending library, all as shown on the plan, which in this case is level from end to end.

As regards internal finish the staircase has a solid panelled balustrade. The ladies' room is distempered in grey with white enamel joinery and a series of cut-out printed groups of delphinium (supplied by Messrs. A. Sanderson and Sons, Ltd., of Chiswick, for the purpose), placed at irregular intervals as if actually growing. The floor of the ballroom is of polished maple on joists and binders specially arranged to be slightly springy, and there is a pilaster effect with green treillage backed with broken white and now relieved with a little artificial autumn foliage intertwined; the walls have a "Canotex" canvas dado, with a printed Oriental strip at frieze and dado levels, the filling being treated with lemon-coloured distemper at the top, shading down through chrome to deep orange. The total cost was about £11,000. The general contractors were Messrs. Howell and Burgess, of Kenfig Hill, and the central heating was by J. C. Hitt, of Bridgend.

The architects are Messrs. Ewart G. Culpin and R. S. Bowers, who desire to acknowledge the valuable assistance in supervision, etc., of Mr. Godfrey Stemp, of Porthcawl.

Bannockburn and Tintagel as National Parks.

As a result of the effort made to secure the Globe Cliff, Tintagel, for preservation, Mrs. Palmer, the owner of the headland known as Treknow, on the eastern side of Trebarwith Strand, has generously presented ten acres of the headland, commanding beautiful views, to the National Trust, in order that it may be secure for all time.

The Borestone field at Stirling, the site of the Battle of Bannockburn in 1314, is to be made a national park, so as to prevent the battlefield being lost to future generations by building. The Borestone Committee, with Mr. Robert McCulloch as chairman, has obtained an option on the land until early in 1931. The cost of the scheme is estimated at £10,000.

An Archæologist's Estate.

Mr. Alfred Edward Winnett Paine (59), of 6, Wellington-square, Cheltenham, a member of the Bristol and Gloucestershire Archæological Society and of the East Anglian Antiquarian Society (net personalty £9,540), left £10,688.

RURAL DISFIGUREMENT

A PAPER on "The Advertiser and the Disfigurement of Town and Countryside" was read by Mr. Harry H. Peach (Hon. Secretary, C.P.R.E. Exhibition Committee) before the Royal Society of Arts on December 4. Sir Lawrence Weaver occupied the chair.

The speaker said that the disfigurement of town and countryside through advertisement was of comparatively recent growth, especially the latter, which dated mainly from the development of the motor-car. It had increased recently with such great rapidity that the question was now forcing itself upon a public which had become very hardened to its surroundings and had little appreciation for refinements of beauty in landscape or architecture. The increase of the motor-car among all classes had sent them out into the countryside and they had been shocked at the untidy mess made by most garages and offended at the vulgar shouting signs which sprang up behind hedges and often invaded what the public had been led to recognise as a beauty spot.

On the subject of garages, it was not so much the pumps that disfigured the countryside. They were functional things and as such were shaped for a purpose. If painted a green or neutral colour certainly they were better. It was the advertisements around the garage which were really of little or no use. He doubted if anyone could say they had been the least influenced by such blatant signs beyond being annoyed by them. The large advertisers and the agents had a host of men with motors and signs, who went round the country trying to persuade the garage owner, tearoom and other small shopkeepers to let them put up signs. Nothing was paid for these, but the person was told they would bring business. The trouble was that the moment one sign went up the flock of enamel sign harpies pounced on the site and the end was a horrible mess. The land and property owner could do much to help in keeping enamel signs and advertisements from buildings or his land by putting in a clause in agreements as suggested at the Leicester Countryside Conference, a copy of which could be had from the Scapa Society or C.P.R.E. It was rather sad to think that the worthy heads of many of those firms, who were so interested in welfare and other amenities, could not realise that this disfigurement of the town and countryside did rather make their other work illogical.

The next form of disfigurement was the hoarding and roadside sign. That form of advertisement could be kept down, he believed, easily if the Advertisements Regulation Act were more strictly enforced by County Councils, most of whom had now adopted it. In its early days that form of advertising was considerably checked by the application of the Act. Could not, asked the lecturer, the County Councils also enforce the doing away with the great signs showing us that we were arriving at a petrol station or garage and adopt some standard sign like those adopted for schools, etc.?

Turning to the problem of urban advertising, we had in self-protection to become so hardened to its hideousness that most people had unconsciously become oblivious to the advertisements which disfigured street and building, except where some new bludgeoning method made its vulgarity unavoidable. There should be legislation to prohibit hoardings on pleasant roads. The most serious menace to the amenities of our towns, however, was the new form of disfiguring the fronts of buildings with great signs, and the brutality with which the companies offered these sites did not do them much credit. The problem of the shop-front and the shop fascia, where each firm tried to shout the other down, was another sad disfigurement to the street and very often to our once pleasant country towns. Uniformity in lettering on the fascia helped to make the pleasanter street. The fly-posting problem on the Continent had largely been solved by the kiosks which we might with advantage adopt here. In Germany these were called Litfass pillars and Berlin had some 3,000 odd of them. They arose from a fly-biller putting his bills on pumps at street corners, when he conceived the idea of putting up these pillars.

As regarded advertisement control, the last year had shown a marked increase in removals and prosecutions, including Derbyshire, Merioneth, West Riding and Cheshire, all successful, so the future was in the public's own hands. But public opinion was rising and we got protests from people like the Archbishop of Canterbury, Mr. MacDonald, Mr. Baldwin and others against the atrocities that defiled our land. What we really wanted was more order and gentlemanliness in our civilisation; that if one taught disorder and chaos, if one disfigured civilisation so that there could be no pride in it, what would be the results? One could already see it in the ordinary townsman's treatment of the countryside.

He doubted if anyone would admit that outdoor advertising was other than wasteful. The outdoor advertiser had his place, but entirely over-valued himself even in our very imperfect civilisation, and when all was said and done the real place for advertisements was the Press.

OBITUARY

Keith Young, F.R.I.B.A.

Mr. Keith Downes Young, F.R.I.B.A., senior partner in Messrs. Young and Hall, who died on December 1 in his 82nd year, had practised for over 50 years, chiefly in designing or reconstructing hospitals. He was at work, we are informed, until within a week of his death. Educated at Tonbridge School, he entered the office of his father, an architect and surveyor, and studied at the South Kensington School of Art. He qualified as A.R.I.B.A. in 1873, and obtained the Fellowship in 1885. He was one of the founders of the Mansion House Council on the Dwellings of the Poor, for which he was hon. architect for about 45 years, and for the late Sir Henry Burdett he wrote the greater part of Volume III. of "Hospitals and Asylums of the World." For over 40 years he was architect to the London Fever Hospital, and to the Middlesex Hospital, of which he was made consulting architect. For both these hospitals he planned extensive reconstructions, and he designed school sanatoria for Sherborne, Blundell's, and Harrow Schools. In partnership with the late Mr. Henry Hall, F.R.I.B.A., he did much work for the Great Northern Central, Royal Eye, Royal London Ophthalmic, and Hampstead General Hospitals, and with Mr. Alner W. Hall, F.R.I.B.A., he was responsible for the Chelsea Hospital for Women, the British Hospital for Mothers and Babies, the Gosport War Memorial Hospital, and newspaper offices in Shoe-lane and Fleet-street. Mr. F. J. Humphry, F.R.I.B.A., is the other member of the firm. Mr. Young was the author of "The Evolution of the Modern Hospital" and "School Sanatoria and Infirmaries." The work of the firm will be continued under the control of the remaining partners, Messrs. Alner W. Hall, F.R.I.B.A., and F. J. Humphry, F.R.I.B.A., and for the time being the name of the firm will be unchanged.

William Shanks.

We regret to record the death, on November 25, of Mr. William Shanks, chairman and managing director of Messrs. Shanks and Co., Ltd., of Barrhead, Glasgow.

W. Lister Newcombe.

We record with deep regret the death of Mr. W. Lister Newcombe, F.R.I.B.A., at the age of 82. He was one of the leading architects of Newcastle-on-Tyne.

PUBLIC WORKS CONGRESS

A TOWN PLAN.

IN connection with the Public Works, Roads and Transport Congress held recently at the Agricultural Hall, Islington, Mr. B. Price Davies, F.S.I., L.R.I.B.A. (City Engineer and Surveyor, Bangor), read a paper on "The Arrangement and Economics of a Town Plan."* From this we take the following extracts :—

The problem taken, said the lecturer, was that of laying out a new industrial town for a population of 20,000 inhabitants. It was to be self-contained and to have its own government. A site was selected about two miles from an old-world market town which has no great pretensions but which was also a tidal river port, where boats of 100-ton freights could discharge on to the quay or into canal barges. The site of the new town was selected for its general suitability. It was of rising ground which faced south-east and had an arterial road (R64) passing through it. A railway line, river, and a canal were also adjacent. The ground to the north-west was good from both agricultural and building standpoints, but between this and the river there was a large area of ground which was flat and marshy and across which a small stream flowed. A forest lay to the north-west, and in front of it was a fine Georgian mansion which had been converted into a hospital. A drive with an avenue of trees led to it from the main road, and alongside the drive was a watercourse with fern-grown banks. A farmhouse and farm-buildings of no historical importance and ripe for demolition lay to the south-west of this avenue. Above the hospital, on a mountain spur which towered over the tree-tops, were some Roman earthworks. To the west of this spur was a valley suitable for a water reservoir, with a good watershed above it. The prevailing winds came from the south-west. The number of people who worked in the factories from other places was a thousand, and the same number lived in the new town who worked elsewhere. The district around was largely agricultural, and small hamlets were scattered around. A regional town plan was in existence and this had been consulted, and the principle of periodic development had been borne in mind. (The town plan is set out in the accompanying illustration.)

The arterial road was taken as one axis, and the drive to the hospital as another axis, and upon this the town plan was set up. The portion north west of the road was selected as the residential quarters, and after finding that the marsh soil was not deep enough to make the foundation costs prohibitive, they made the portion to the south-east their industrial area. As a partial belt between the two, the large open spaces were arranged as common playing-fields and controlled recreation spaces. The expansion of the town in a development which was in excess of the 20,000 population would be lateral — in a south-westerly or north-easterly direction. For houses of the working-class type, which the local authority were obliged to build and let, the sites near road 64 were selected, but with the allocation of sites along the more important road for houses of private ownership. To the north-west of road 16 the development of better-class residential property had been accommodated, and the density decreased as the values increased, and this had been done so as to avoid undue severity of distinction.

The town centre had been placed in a convenient position and with a good approach to it from road 64. Behind the town hall and other public buildings were the public gardens, and beyond were the school sites. Shopkeepers with brightly lit shops objected to being flanked by darkened premises such as banks, and that was why road 42 was reserved for such shops, while banks and similar premises were placed along road 41. The shops along road 64 were built as houses suitable for conversion to shops. Parking places and cab-ranks were arranged along wide road spaces, as well as in spaces specially provided.

Buildings in which large numbers of people are accommodated, such as churches, theatres, schools, and halls, were arranged in positions where the crowds which they poured on to the roads were given numerous points of distribution which made for rapid dispersal. This policy was adopted likewise with sports grounds, railway stations, 'bus stations, and 'bus halts.

Throughout the arrangement of the town plan was the element of *grouping*. This made for convenience, efficiency, and economy. On the town centre they had, from the gymnasium to the market, a group of buildings under local government administration, while from the post office to the labour exchange was a group under national Government administration. Not only was this grouping useful for administration, but in the process of time extensions and curtailment become necessary, and these lent themselves well to a comprehensive scheme when grouped on adjacent plots of lands. The baths and open-air baths were also grouped, and in a position to take the water from the spring as well as from the town supply. This in turn offered alternative storage accommodation in the event of the failure of the town water supply, such as the bursting of a water main. The fire station was also grouped with the police station, and near the baths, from which water could be used for fire drill or as an emergency supply in case of fire.

It would be seen that what might be termed light industries necessary for the town itself were arranged along road 66. Other industries, which meant imports of raw material and exports of finished goods, were arranged along road 65, which made it unnecessary for their traffic to pass through the town centre. The lighter classes of these other industries were arranged with access for road transport only, and yet with easy access to the railway goods station and general sidings. Nor were they far from the wharf and the air station. Another class of industries was given common yet adjacent railway transport accommodation on the south side, while the heavier industries were placed on the east side. Here independent railway sidings were provided, while some were directly adjacent to the wharf as well. The direction of prevailing winds influenced the location of the industries, for noisy and offensive trades, and particularly those with large chimney-stacks, were arranged in the eastern portion of the site. Here, too, were grouped the municipal services in depots adjacent to each other. These provided the town with gas and electricity, while the services of highways maintenance, street lighting, water, workshops, street cleansing, refuse collection and disposal, property repairs, and sewage disposal, were all grouped around the office of the chief inspector of works and the central stores. This arrangement made for efficiency and co-ordination of organisation and economy. The position of the electric power station, depot and workshop was influenced by the desire to utilise all water power to the best advantage. The low-level sewer came from the direction of the railway station and had an outfall which was low for use as water power, but the high-level sewer which came under the railway from the north was of service. There was also the surplus water of wet seasons from the water mains, while the weir of the river and the water of the little stream were of service as cheap water power for electricity. Again, there was the possible utilisation of heat from the refuse destructor when it was converted into steam power.

The 'bus depot was also the 'bus station of the rural service, and with its workshops had been given a good site, and the petrol tanks could be filled by gravitation from the railway tanks at the railway siding. (This convenience was also given to the air station.) The other side of road 69 was the abattoir, with its railway siding, cattle lairs, slaughtering hall, cooling room, cold storage, and other minor buildings necessary to it. Adjoining it, and given the use of the same siding, was the cattle market. Next came another source of commercial transaction for the neighbouring agriculturalists, namely, the mart for vegetables and fruit. A place for the weights and measures office was found in this depot. Then came the post office depot, with its workshop and stores for cabling and wiring the telephonic communications of the town. Next came the petrol depot, which took all customers off the road into a yard, where a battery of numerous petrol pumps was conveniently arranged and screened from the gaze of an æsthetic public.

* This Paper was submitted for the open competition arranged by the Congress Committee, and was awarded the first prize of a gold medal and fifty guineas.

POINTS FROM PAPERS.

WE give below the salient points from a selection of the other lectures delivered at the Congress.

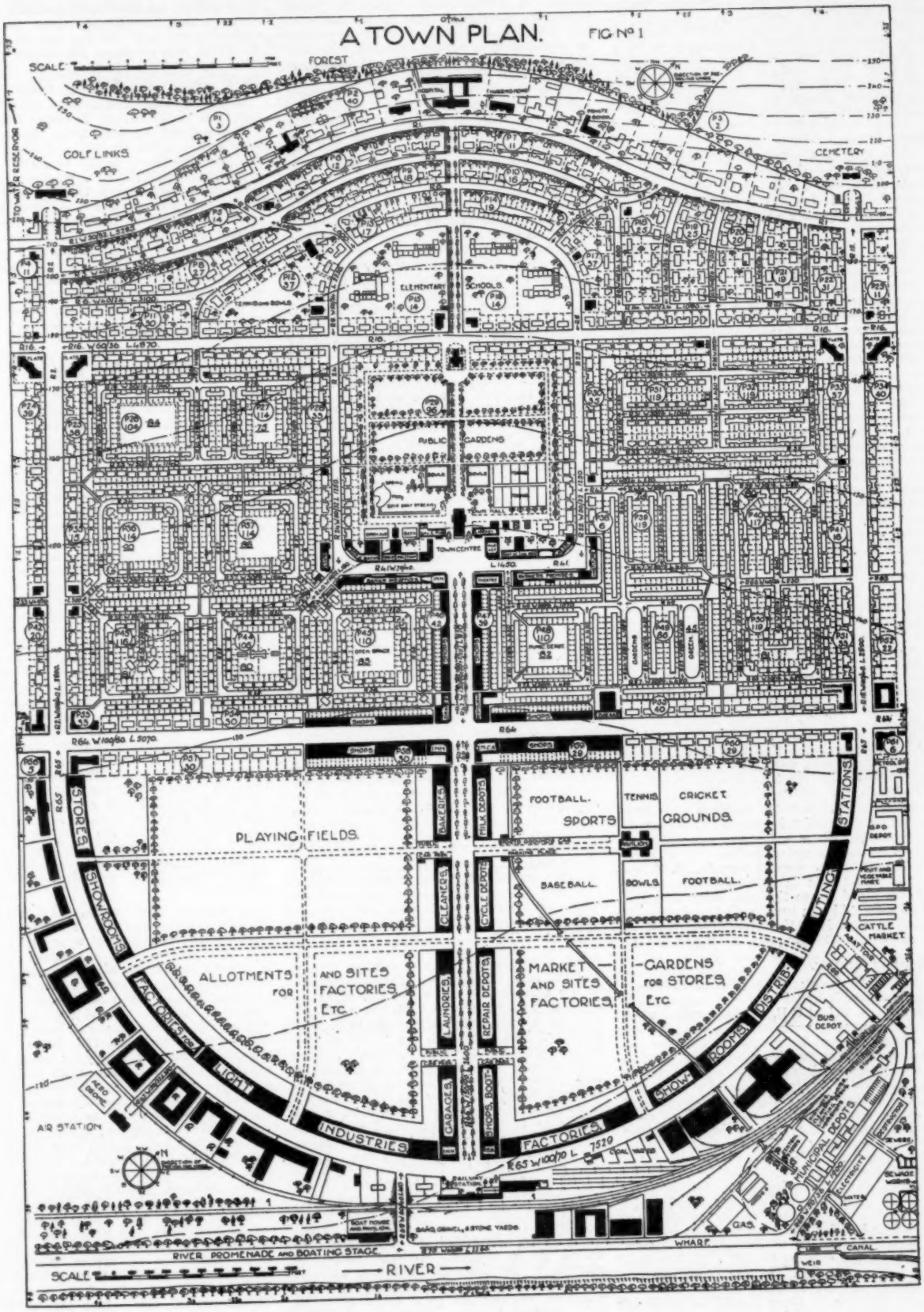
Public Services and Town Planning.

In a paper on "The Inter-Relation of Public Services and Town Planning," Miss Jocelyn F. Abram, A.M.T.P.I., said that between town planning and highways, public services, housing, transport, agricultural problems and local government there was already a close relationship, for those subjects were all integral parts of the structure on which general development was based, and they had a pronounced bearing on the unifying practice of town planning. Even so, a closer association was necessary to make the relationship complete.

Of all public needs the most ancient and important was that of water supply. It was often suggested that the extension of the road system had the most pronounced influence on the expansion of developed areas, but actually that did not greatly affect the position unless such work was accompanied by an extension of the area of water supply. In the early days the direction of roads was frequently governed by the existing sources of water, as in the deserts, where the waterpools, and not the mileage, controlled the actual siting of the principal routes. The old law demanding settlement by water was as strongly in force to-day as when supply was limited to the capacity of individual wells and rivers, and arising out of this was one conspicuous regrettable result, the tendency of development to follow closely and continuously along the track of mains, too often laid under the great highways. This evil, often aggravated by the temptation to build behind only minimum building lines in order to effect a slight economy, made it imperative that in all new districts into which water supplies were to be carried, town-planning control should be established, if a degree of permanent pleasantness was to be hoped for.

The comparatively new scientific problems of drainage and sewage disposal, closely associated with the supply and consumption of water, also had a marked bearing on the siting of new development, "main drainage" also being a strong inducement to the erection of property. The unprecedented recent increase in the extent of urban areas was gradually proving that a system of independent local drainage and sewerage schemes was outgrown, and the desirability of evolving extensive regional land drainage schemes and joint sewage schemes—as much from the point of view of economy in working as that of efficient service—deserved constant consideration; more especially as, if they were eventually put into operation, distinct changes would take place in the character of certain areas of land, so affecting both regional and town-planning schemes.

Considered generally, supplies of fuel for lighting and power had an influence on de-



By Mr. B. Price Davies.

velopment similar to that of water supply, but in a modified degree.

Another problem was also slowly emerging as a result of the rapid development of both buildings and traffic—that of efficient street lighting. That, perhaps, constituted one of the most important reasons why housing development should not be contiguous with main highways.

Main Roads.

Some practical points to be considered in the lay-out, improvement and widening of main roads were suggested by Mr. H. P. H. Morgan, A.M.Inst.C.E., A.M.Inst.M. & Cy.E. The speaker said that in every surveyor's office there should be a scheme prepared for the ultimate lay-out and construction of all roads which came under his jurisdiction. To carry out small improvements in a haphazard manner, regardless of any practical scheme, was a retrograde step. In the majority of cases it was impracticable, on account of cost, to carry out the improvement of a whole road in one operation. If such were possible, a proper scheme would be prepared, but there seemed to be no reason why such a scheme should not be prepared in any case. A decision should be made on the width of the road, the improvement of any corners, and the regulation of any undesirable grades. These improvements should, for preference, be indicated in red on the 1/500th or the largest scale of ordnance sheets available, so that they were always brought to mind, if and when it became imperative to carry out minor improvements. With the aid of such a record it should be possible to make all such minor improvements contributory to the ultimate scheme. A longitudinal section showing the proposed new levels, and a typical cross section showing the widths of the carriageway and footpaths, should also be prepared. In the preparation of the longitudinal section proper attention should be devoted to the question of surface drainage, while in the case of the cross section the positions of surface water drains should be indicated, *i.e.*, if such drains could, as is desirable, be allocated a definite position. The levels of the new road should as far as possible be of such values that the floor levels of the majority of houses were above the new footpath levels. Too much prominence could not be given to the importance of attending to the question of surface-water drainage when preparing the longitudinal section. In the case of town roads surface water was generally collected in surface-water drains, but on rural roads such drains were seldom found. What drains there were in existence were merely ditches piped in, so that the depth at which they were laid was usually the minimum. It is clear, therefore, that great care must be exercised in arranging the gradients.

Highway Bridges.

"The Widening of Highway Bridges" was dealt with by Mr. C. S. Chettoe, B.Sc. (Eng.), A.M.Inst.C.E. The problems of bridge widening were not all new, said the speaker, but had been with us to some extent for perhaps two hundred years. Though many mediæval bridges had come down to us practically unaltered—as, for example, East Farleigh and Teston in Kent—perhaps a larger number had been widened at some period between the end of the seventeenth and the beginning of the twentieth century. Modern motor traffic had made necessary the widening or reconstruction of thousands of bridges, while the weight of modern vehicles and the increasing variety of bridge design rendered the problems to be faced more varied and difficult than in the past. It was frequently necessary to strengthen or partly to rebuild the existing bridge when a widening was undertaken. It was often difficult to decide whether widening should be undertaken or whether there should be complete reconstruction. Whichever method was the cheaper would generally be chosen, but a decision might be influenced by the possible bad condition or weakness of the existing bridge, its bad alignment, lack of proper headroom, insufficient span or too restricted waterway. Bad alignment could, of course, be improved to a certain extent in widening. Colliery settlement might doom a bridge, as the soffit might have dropped relative to the water level of the stream flowing through. The presence of a bad "hump" might make it seem desirable to reconstruct rather than to widen, but this could often be got over by the construction of a completely new deck on extended abutments. It was difficult to see any objection to a slight "hump" in the average road and the appearance of a bridge was enormously improved by some camber of the parapet and also of the main beams or girders, if they existed. It might be pointed out that the removal of a narrow bridge in a tidal river or its replacement by one having a larger waterway might cause increased flooding above the bridge. This happened after the removal of Old London Bridge. If such a bridge was above the tidal limit its removal might cause flooding immediately below if there was another narrow bridge downstream. If the bridge had great æsthetic value it was generally better on artistic grounds to leave it alone and construct a new bridge not too close to the old one. Often this was impracticable or too expensive, and many successful widenings of ancient bridges had recently been carried out. Should a bridge be scheduled as an ancient monument, notice of any proposed widening or alteration must be given to the Office of Works under the Ancient Monuments Consolidation and Amendment Act of 1913.

The lecturer divided the subject into various headings. Dealing with masonry or brick bridges, the speaker said that they must be treated in the following ways:—(*a*) widening in the same style, (*b*) widening in a different and independent style, (*c*) widening by cantilevering. It was much better to do (*a*) if it could be managed and if the elevation of the widened side of the bridge was visible. An arched bridge looked very unsightly if widened by any form of beam construction, and it should be remembered that the deflection of the beam would be much greater under heavy live loads than that of the existing arch, as a beam deflected more than an arch of the same span under equal loadings. The widening need not be entirely of stone or brick. Abutments, wing walls and spandrel walls might be of concrete, plain or reinforced, or of mass concrete faced with brick or stone, according to circumstances, while a reinforced or plain concrete arched vault was usually suitable. The new or re-erected parapet should always match the original one on the other side.

Slippery Roads.

In the course of a paper on "Bituminous Road Surfacing," Mr. T. Peirson Frank, M.Inst.C.E., F.S.I., drew special attention to the comparatively new method of finishing the wearing surfaces of the roads by the use of pre-coated chippings as a final dressing. The treatment was "with a view to providing a roughened surface," and on those grounds and on account of the magnitude of the area to be covered not only on contract work, but also on the materials mixed and laid by local authorities, a few details as to the preparation of such chippings might be given. In their preparation, the ½ in. or ¾ in. stone (94 per cent.) complying with B.E.S.A. Specification No. 63 should be first fed into the mixer and immediately the whole of the filler (3 per cent.) should be added, these materials being mixed together for 30 seconds, the bitumen (3 per cent.) being then added and a wet mix continued for 60 seconds. No sand should be allowed to get into the mixture, as that would not only rob the chippings of their adhesive qualities but great difficulty would be experienced in separating the granite chippings when they had become cold. The coated chippings should be allowed to become cold before they were broken up and used. They should be uniformly sprinkled on the road surface immediately after its initial consolidation, and one ton should cover a maximum area of about 100 square yards.

Water Supply and Regional Planning.

In the section of his paper on "Water Supply as a Factor in Town and Regional Planning" dealing with the safeguarding of sources of supply, Mr. G. L. Pepler, F.S.I., said that the more readily accessible sources of water supply had, speaking generally, been appropriated, and the consumption of water was growing and was likely to continue to grow, so that, if the remaining sources were to be made available at the lowest cost and expensive conflicts avoided, more systematic foresight was required. With reference to catchment areas, the water engineer and the town planner were likely to have a common object: the former would want to keep the surface free from possible sources of pollution and the latter might want to keep them free from building so that they might provide great open spaces. It would be most interesting to hear from water engineers to what extent they thought it would be safe to allow public access to these spaces, for picnicking, camping, boating, fishing, etc. The value of those spaces as lungs and as affording beautiful prospects would no doubt be great, but if some public access could be safely permitted, they would have a still greater recreational value. Possibly, if provision of access were limited to those who came by foot, that would eliminate the chance of mass invasion with its usual accompaniment of litter and unpleasantness. It is probably the pedestrian who most thoroughly enjoyed wandering in remote places, and several town plans were provided for pedestrian ways out into the country by reserving green strips alongside existing footpaths or on either side of streams.

Water supply, said the speaker, was given a short chapter in the report of the Bath and Bristol Region Joint Town Planning Committee. Certain catchment areas were defined as far as was possible in a limestone country. Reference was made to the danger of pollution if building were allowed in those areas. It was stated that in order to avoid that danger the principal water company were buying up as they could the land in their catchment area, but found the process of acquisition slow and costly. It was anticipated that the company would be glad to support a regional planning scheme which would keep that area free from building, although they already had pretty stringent by-laws.

As regarded distribution, the first thing a regional planner had to do after his preliminary survey was to select appropriate places for development, and it seemed that he would do well to consult the water engineer at an early stage so that the factor of water supply might be taken into account both in regard to facilities available and the possibilities of their economical extension, and as to places which had the disadvantage of either costliness of supply or possibility of causing pollution unless extraordinary expense was incurred. In respect to roads, it seemed now to be generally agreed that all mains should, in so far as possible, be kept clear of the carriageway, so that disturbance of its surface both in making connections or relaying might be avoided. This suggested that it was desirable to duplicate water mains and lay one on each side of the carriageway or under the footpath. Some time ago the officials of the various departments in a large city went into the matter and came to the conclusion that to allow ample space for all sewers, pipes, cables, telephones, etc., a clear space of 20 ft. should be left on either side of the carriageway. This suggested that where the carriageway was to be 30 ft., the total width reserved should be 70 ft. to allow space for footpath and grass verge, under which the mains could be laid.

NATIONAL HOUSING AND TOWN PLANNING

A JOINT conference of the National Housing and Town Planning Council and the Scottish National Housing and Town Planning Committee was held at Buxton from Friday, November 29, to Monday, December 2. Several memoranda on housing and town-planning subjects were presented, and a "Save the Countryside" Exhibition, organised by the Council for the Preservation of Rural England, was on view. Sessions were presided over by Mr. Frank M. Elgood (chairman of the National Housing and Town Planning Council) and ex-Provost James Norval (chairman of the Scottish National Housing and Town Planning Committee). Below we give extracts from some of the memoranda presented at the conference.

The Present Housing Situation in England and Wales.

In a memorandum on this subject, Mr. John G. Martin, Secretary of the Council, stated that during the current year further progress had been made in the construction of working-class dwellings in England and Wales, and the grand total of houses of all classes completed between January 1, 1919, and September 30, 1929, now exceeded 1,390,000. The construction of this large number of houses was undoubtedly a great achievement, but it should be remembered that the 1919 survey, which was conducted on conservative lines, showed that the net need for England and Wales was estimated at that time at approximately 800,000 houses. Moreover, it was generally agreed that not fewer than 100,000 new houses were required each year to meet the growth and expansion of population and to replace those houses which had fallen into complete disrepair. At all events, it was to-day an indisputable fact that there was still a nation-wide shortage of modern dwellings which could be let at rents within the means of the lower-paid wage-earners. It was satisfactory to record that the present Minister of Health, when receiving the National Council's deputation on July 22, stated that :—

"While he felt that it was impossible to commit Parliament for ten years . . . he could say that he hoped to continue whatever subsidy was reasonable in the circumstances from time to time, and, meanwhile, had taken steps to preserve the Wheatley subsidy at its present figure until the next statutory review was due. (*Vide* Official Report of the Deputation.)"

It was clear that the chief need at the present time was for the steady construction of houses of the three-bedroom, non-parlour type, and the special Committee of the National Council, which submitted its Report entitled "A Policy for the Slums" in April, 1929, recommended that every State-assisted house of this type should have a combined floor area of at least 760 ft. There was no information readily available to show whether this minimum standard was being generally maintained throughout the country, although a recent "Return" of the Ministry of Health stated that the average superficial area for all A-type houses erected by local authorities in England and Wales under the 1923 and 1924 Acts during August, 1929, was 756 ft. It would appear that the cost of the average non-parlour house, with land, roads and sewers, was at the present time approximately £400, and assuming that the interest on the loan was at the rate of 5 per cent. per annum, the gross rental of such a house would be, roughly, 10s. 3d. a week.

The Housing of the Poorest Classes.

In a memorandum on this subject, Mr. W. E. Whyte, Clerk to the District Committee of the Middle Ward of Lanarkshire, submitted the following suggestions to the conference :—

1. That the problem of the housing of the poorest classes should be considered and dealt with as a housing and health problem rather than a poverty problem. 2. That there should be no lowering of the standard of the dwellings to be provided for the poorest classes. 3. That "family earnings" should be the criterion (or at all events the chief criterion) that should determine those coming within the term "poorest classes." 4. That local authorities should, in their slum clearance schemes and otherwise, provide an adequate number of houses for the poorest classes to be let at rentals of, say, £12 and £14. 5. That the economic situation could be met without introducing any new system of subsidy; that was to say, the scheme of State assistance for "improvement" houses could be made to apply, subject as aftermentioned :—(a) that the present State contribution of 50 per cent. of the deficit should be increased to three-fourths of the deficit. Under the scheme proposed, a considerable number of persons would not get the benefit of the reduced rentals, and this would, to some extent, be a set-off to any increase arising from the introduction of a general scheme of reduced rentals for the poorest classes as a whole; (b) that the reduced rentals should only apply to members of the poorest classes, and not to persons removed from slum houses who were financially able to pay a normal rent. If it were thought desirable, in order to expedite slum clearances, to offer an inducement of lower rental to all who had occupied condemned houses, the concession should only be given to those who did not come within the category of the poorest classes for a limited period of, say, three years. 6. That the plea which was being put forward in many industrial districts that the present scale of rentals was too high for the working clases, generally, to pay could be met under the scheme suggested, whereby "family earnings" would be the main criterion in relation to the amount of rent payable. If the State contribution were increased as suggested, the carrying out of the policy adumbrated should be left to the local authorities, who would apply it according to the circumstances and conditions of their own areas. This might involve the payment by the State, under suitable conditions, of a lump sum per house, which had many advantages to commend it, notably freedom to the local authorities to deal with their local conditions as to them seemed best.

The Rural Housing Problem.

In some notes on this subject, compiled by Mr. Percy Hurd, M.P., President of the Rural District Council's Association of England and Wales, it was stated that experience showed that in some parts of England and Wales good results could be secured under the 1926 Act. Where there were cottages or other buildings suitable for reconditioning they could, under that Act, be made into good houses for rural workers at rents which they could afford. In such cases the charge upon the county fund was very small. Accordingly, every possible means should be taken to bring the 1926 Act into wider use. Where a county council was failing in the duty laid upon it by Parliament in this matter the Ministry of Health might be expected to place the administration of the Act in the hands of the rural district councils concerned. The definite powers possessed by sanitary authorities for dealing with insanitary houses had been of great service. Fuller use should be made of these powers, and pressure might well be brought to bear on those owners who could with advantage avail themselves of the 1926 Act. Above all, there was, under modern conditions, a very urgent need for maintaining good standards of building and reconditioning. The uglification of rural England, which was only too apparent at the present time, should engage the earnest attention of every local authority in the country.

The Position of Housing in Scotland.

In a memorandum on this subject, Mr. W. E. Whyte, Clerk to the District Committee of the Middle Ward of Lanarkshire, referred to the special position of some of the industrial areas (especially the mining districts), which at the present time were in a very depressed state so far as industry and employment were concerned. In some of those districts the houses provided by the local authority, which they were satisfied were necessary to meet the needs of the area, had not been taken up by the people for whom they were intended, or, having been taken up, they had been vacated on account of the fact that unemployment was rife, and earnings, where there was employment, were on a low scale. In other words, the workers could not pay the ordinary rental. Such a situation at once struck at the standard of living conditions. It meant that, as a result of the economic conditions that prevailed, people were living in unsatisfactory dwellings, to the detriment of their own well-being and to the menace of others, because overcrowding in unsuitable dwellings was the inevitable result of the conditions that now obtained. How was such a situation to be met? In the early days of the launching of slum clearance schemes a special "pool" was formed, so far as Scotland was concerned, out of which certain necessitous districts were assisted over and above the assistance ordinarily granted to other areas. In such circumstances as obtained at present in some of the industrial districts, a plea could surely be made for the granting of special assistance by the State. The burden was obviously too heavy for the local authority of the area to carry, and it could not be said that the responsibility was only or wholly a local one. The State interest and responsibility were equally concerned, and the emergency conditions should be overtaken by a joint effort and contribution on the part of both.

Decentralisation.

In a memorandum on this subject, Captain Richard L. Reiss said it was now recognised that the gradual replanning of existing big towns involving the solution of the slum problem necessitated a large measure of decentralisation. It was also becoming more evident that merely to decentralise population, without also decentralising industry, was only to create fresh evils. The displaced slum dweller who had to move three miles further out and come backwards and forwards to his work daily could not possibly pay both for the rent of a decent home and the cost of his daily travel.

1. The first essential was the development of regional planning. This regional planning must cover a sufficient area to secure broad consideration of the location of industry and the provision of transport. The region of the Greater London Town Planning Committee was by no means too large. 2. The Regional Planning Committees must be able to deal with built-up as well as unbuilt areas. 3. These committees must become statutory authorities with statutory powers, and it must be made obligatory for the town planning schemes of individual authorities to conform to the regional plan. 4. Assuming that the necessary statutory enactments were secured for the above purposes, then the regional authorities must set themselves to the task of planning the best distribution of population and industry. In the open country surrounding a large town or network of towns, the existing transport facilities must be surveyed and provision for additional facilities provided. Steps must be taken to provide for the migration of large numbers of people and industrial concerns from the centre of the large town. This migration must not be haphazard, and the mere zoning of the region indicating where residences might be built, or what areas should be reserved for industry, was not sufficient. The regional authorities must definitely have in mind the creation of new centres of population which would develop as communities, self-contained, except that they would have a definite relation to the central big town. Whether these new communities be called garden cities or satellite towns did not matter. The essential point was that each new centre of population should develop on land planned from the start, both for industry and for healthy living.

ROYAL INSTITUTE OF ARCHITECTS OF IRELAND

PRESIDENTIAL ADDRESS.

In the course of his presidential address, delivered recently before this Institute, Mr. F. G. Hicks, having dealt with some matters of local professional interest, came to the consideration of modern architecture, and said whether the rising generation of architects would evolve a national style of architecture, as Professor Ostberg had done in Sweden, remained to be seen—it would be a slow process, as was the revival of language and literature; and more difficult, for poets and writers could dream beautifully, while the architect had to be practical as well. The modern movement was making headway on the Continent and to some extent in England. This, he thought was the result of steel and concrete construction influenced by the cubist, ignoring completely history and tradition in the search for an almost savage simplicity. Some of them had the opportunity of looking at reasonably modern architecture in Holland last summer, generally carried out in most beautiful brickwork, some full of carefully thought-out and elaborate detail, others severely simple. Personally, he was fascinated at the boldness of the architect daring to stray so far from the beaten track. (By the way, he usually had his name carved in a fairly conspicuous place near the entrance.) Whatever happened to this modern movement, the Classic style would never be out of date, and one came back to Dublin and was refreshed and stimulated after gazing at Trinity College, the Bank of Ireland, the Custom House and other buildings there that were world-famous. One must, however, have boldness and confidence, and while looking at the buildings in Venice, he felt what consummate artists the architects were in those days and what confidence they and their clients had in themselves and the future. A conquered nation fleeing from their enemies to those inaccessible lagoons, erecting those priceless palaces and churches on what one would imagine the very worst of foundations. Time, labour and cost were apparently of no account, and to-day after hundreds of years, these buildings appeared to be as sound as the day they were erected, and care would, no doubt, be taken that they might last for ever, and why? Because in the first place, there was a desire for good architecture. Good architecture and craftsmen were available and gave of their best, and the architecture of Venice would be reverenced for all time. Now was there a desire for good architecture in this country? In public buildings, he thought there was, but not so much in private work, and the reason was that the public had very little knowledge of architecture or the desire for it, which, to his mind, was more important to the future development of Ireland than a knowledge of Irish. It had been suggested that lectures on architectural subjects illustrated by lantern slides might be given in the schools or to school children, and that the walls of schools should be adorned with photographs of famous buildings both ancient and modern and prizes offered for essays, etc., so as to impress the young mind with beautiful ideas of building and architecture. If this scheme matured, he was sure they, as members of the Institute, would be only too anxious and willing to assist.

There was another matter of great importance that had already received attention in England—the growing disfigurement of the towns and countryside by the erection of ugly hoardings and advertisements, petrol pumps, cutting of trees, etc. If the Town Planning Bill, now before the Senate, became law, these matters would, doubtless, receive attention, but if not, control should be given to local authorities, and they, as an Institute, should offer their services gratuitously and in an advisory capacity in their own part of the country. Ireland had a reputation for beauty, it was the duty of everyone to see it was unspoilt.

In Dublin, there was a censor to see that nothing objectionable was shown on films in the cinemas, and recently a Board of Censors had been appointed for the same purpose with regard to publications of all kinds. Why not a censor for buildings? There were, he knew, by-laws which had to be complied with by persons wishing to build as regards thickness of walls and details of construction and drains, but he believed he was correct in stating that the city architects in Dublin and elsewhere had no control whatever as to the external design or appearance of the building or of the material employed. They wanted this changed and they wanted effective control exercised over the external appearance of a building at which everyone had to look and which belonged as much to the public as to the owner. No one should be allowed to disfigure the landscape, and no house in a town should be rude to its neighbours.

As architects, *they* also wanted to be controlled, and that brought him to the question of Registration. The Draft Registration Bill had been before them and they hoped in the near future it would become law. A similar Bill was now before the House of Commons in England, having passed through all the stages in the House of Lords and should in the near future become law. Registration, when passed into law, would not only protect them from the ravages of the unqualified architect, but would also protect the public in the same way as they were now protected from the unqualified practitioner in medicine and law.

Official architecture and what was called the exploitation of the profession was having the serious consideration of the Royal Institute of British Architects. It seemed that something like 65 per cent. of their members were salaried architects, and the feeling was that neither the salaried men nor the private practitioner were getting fairplay. They had a similar state of affairs there—he did not know what the percentage was—but salaried architects should be paid sufficiently well and kept sufficiently busy to be able to live in comfort without having to take on private work and encroach on the work of the private practitioner. Railway companies and other large concerns often had their own architectural staff, generally under the control of the chief engineer; what did he know about architecture, and why should he get the kudos of any successful buildings erected? It was difficult to suggest to the Government or to large corporations how they should run their various departments, but the Institute ought to be able to protect their members; if the conditions now governing competitions could be made to apply to public and salaried appointments, this might improve the state of affairs now existing.

Building Materials Bureau.

The Building Materials Bureau is situated in the Architectural Association's premises in Bedford-square. Its object is to provide a centre where materials and fittings appertaining to buildings may be inspected and information obtained on all the latest manufactures. The exhibits in the Bureau include decorative materials, asbestos cement goods, bricks and ceramic materials, electrical goods, fabrics, flooring materials, glass, metalwork of all types, plywoods, brick fittings, etc. The Bureau is open from 10 a.m. to 6 p.m. (Saturdays 1 p.m.).—*R.I.B.A. Journal.*

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS

THE fourth annual banquet of the Incorporated Association of Architects and Surveyors was held at the Clothworkers' Hall, Mincing-lane, E.C., on Friday last. The president, Major R. I. Tasker, T.D., L.C.C., F.I.A.S., occupied the chair, and among those present were Field-Marshal the Rt. Hon. Viscount Allenby, Lord Darling, Lord Monk Bretton, the Lord Bishop of Norwich, Rt. Hon. Tom Shaw (Secretary of State for War), Sir T. Vansittart Bowater, the Dean of St. Paul's, Mr. Philip de Laszlo, Sir H. Percy Shepherd, Sir Murdoch Macdonald, Mr. Ambrose Child (Master of the Clothworkers' Company), Sir William Ray, Messrs. W. Forbes Campbell, W. Baird, W. Lionel Jenkins, Barry Parker, A. K. Dodds, N. G. Gedye, Godfrey Giles, Alderman E. G. Culpin, Messrs. G. Topham Forrest, R. S. Gledhill, G. H. Parker, Lt.-Col. Mitchell Montcrieff, Messrs. T. Barron, G. M. Burt, H. J. Furlong, and the secretary, Major G. J. B. Athoe.

The loyal toasts having been given, the toast of "The Houses of Parliament" was proposed by the Very Rev. Dean Inge in witty fashion

Lord Darling replied for the House of Lords. He regretted that he was not an architect; had he been one there would be more houses good to look at. He would have built one as well for the Dean of St. Paul's: in what style he did not know—Rococo, perhaps!

The Secretary of State for War spoke for the House of Commons. He referred to the architects who had put bad stone into the Houses of Parliament; the saving grace was that modern architects were putting in a better. He hoped to see the time come when architecture would rise to great heights again. He was not one of those who thought that all the best talent had lived in ancient Rome and Greece. He felt that the human race was climbing up and up, and with it would climb the architects. The speaker recalled Biblical reference to the money-changers being driven out of the Temple. During the last few days, he said, he had almost been whipped out of the Chamber by the money-changers. He had heard many discussions in the House of Lords and also many sermons—and was satisfied to be a member of the House of Commons. He would like to see in the House a little more grace, more suavity, and a great deal more wit, but, still, they had qualities almost as valuable.

Lord Monk Bretton (chairman of the L.C.C.), submitted the "City of London, its Corporation and Guilds," in the course of which he said that the relations between the L.C.C. and the City were harmonious and excellent. The County Council, the Boroughs and the Corporation knew their respective places and kept them in what they were attempting to do.

Sir George Wyatt Truscott replied. With regard to the City, he said, it was healthy from the material point of view. Until five years ago a stranger would have thought that we had not recovered from the War. Now, however, the City, Phœnix-like, was rebuilding and renewing its beauty. It was now delightful to see the buildings—products of the genius of great architects.

Mr. Ambrose Child also replied.

"Imperial Services" were given by the Lord Bishop of Norwich, and replied to by Viscount Allenby.

Viscount Allenby, proposing "The Association," said that from what he saw architects and surveyors were doing very good business. Streets and bridges were being demolished and new streets and bridges being projected and erected; we had not got them yet, but

perhaps it would not be long. Hotels and cinemas were being put upon the sites of our ancient palaces, but London was not losing. Architects were building on severer and straighter lines; the results were "things of beauty and joys for ever," because buildings were designed for the purpose to which they were to be put.

The President, replying, said that the Association had accomplished much in developing, stimulating and encouraging the rising generation of professional men to practice all that was sound and good in the art and science of building. The mental outlook which professed to see something to admire in the depraved and revolting distortions which disfigured certain portions of our beautiful country would receive no sympathy from the Association. During the past year the Association had been strengthened by the addition of many distinguished and eminent men. The library had been enlarged during the past month and over 400 volumes had been added. However invidious it might be, special praise must be awarded to the Education Committee for preparing such an excellent curricula for examination; it required an applicant to be acquainted not only with classical work, but to be up to date. The person examined was required to exhibit a knowledge of those things which were requisite to ensure good building; the protection of the public in general, his client and himself in particular.

They would continue to cultivate a comprehensive and well-proportioned view of responsibilities in the conduct of affairs and varied duties; they would expand to the dimensions of their minds, abstracting any irregularities, and bring into bill form a measure which would aid individual exertion and development. They hoped the day might soon dawn when antagonism would cease and all architects be united in striving to make buildings worthy of our Empire, country, and our race.

Town Planning.

The following progress in town planning in England and Wales for the month ended October 31 is reported by the Ministry of Health :—

Town-planning scheme submitted (Stage C) :—

Durham : Billingham U.D.C., Stockton-on-Tees T.C., Stockton-on-Tees R.D.C. (main area and additional area).

Preliminary statements approved (Stage BB) :—

Lancashire : Sefton R.D.C. (2).

Middlesex : Feltham U.D.C.; Southall-Norwood U.D.C.

Northumberland : Newcastle-upon-Tyne T.C. (Western).

Glamorganshire : Barry U.D.C.

Preliminary statements submitted (Stage B) :—

Hertfordshire : Barnet R.D.C.

Somerset : Taunton T.C.

Resolutions received (Stage A) :—

Berkshire : Maidenhead T.C.

Derbyshire : Chesterfield B.; Chesterfield R.D.; Bolsover U.D.; Dronfield U.D.; Brampton and Walton U.D.

Durham : Stanley U.D.C. (Tanfield U.D.).

Surrey : Sutton and Cheam U.D.C. (Brighton-road area).

Essex : Ongar R.D.C.; Romford U.D.C. (No. 2).

Lancashire : Barton-upon-Irwell R.D.C. (Barton Moss).

Middlesex-Southall-Norwood U.D.C.

Sussex : Brighton T.C. (Steyning West); Haywards Heath U.D.C.; Uckfield R.D.C.

Yorkshire : Halifax T.C. (Skircoat); Leeds T.C. (Tadcaster area); Leeds T.C. (Tadcaster area).

THE SURVEYORS' INSTITUTION

QUANTITIES FOR ENGINEERING WORKS.

At a Quantity Surveyors' general meeting held at the Surveyors' Institution on Wednesday, November 20, a paper on this subject was read by Mr. Oswald Healing, who said that the increasing complexity of modern life, whether industrial, commercial or professional, had called for a greater degree of specialisation among the people engaged in any business than was formerly the practice. The great building industry with its allied professions was no exception to the rule. Up to the early part of the nineteenth century it was the custom for architects not only to design buildings but to engage workmen, buy materials, superintend erection, and deal with accounts. Under this arrangement some of our noblest buildings were erected. Sir Christopher Wren was not only architect designing the lines and contours of St. Paul's Cathedral and Greenwich Hospital, but he also combined in his own person the offices of engineer, contractor, and surveyor.

Architects had long given up the practice of carrying out work by administration, and the employment of contractors was now the established method of conducting building operations both large and small. Further sub-division of the duties formerly carried out by architects had resulted in assigning the design of important constructional work to consulting engineers, and the preparation of the bills of quantities and the settlement of the final account to surveyors. The essential features of such a system might be briefly summarised in the statement that the architect was concerned with the general design and planning of the building, and the setting up and maintaining of a standard for the materials and workmanship employed in its construction; the engineer solved the special structural problems; the contractor's duties were, while carrying out the instructions of the architect and the engineer, to supply all labour, material and plant, and finance the job during progress; and the quantity surveyor, in his quasi-judicial capacity, interpreted the valuation clauses in the contract as between the employer and the contractor, and decided the amount to be paid for the works executed.

In buildings to-day there was much design of a definitely engineering character that was incidental to and complementary to the work of the architect. It was becoming more and more the custom for architects to consult engineers in relation to such special structures as deep concrete foundations, retaining walls, piling, structural steelwork, and reinforced concrete. The reasons for this practice were not far to seek. The scientific investigation of the behaviour of certain materials and manufactures which had been undertaken in recent years, fostered both by private enterprise and by the professional institutions, had resulted in a much greater variety both of materials and methods of construction being available for building purposes. Again, the special requirements of certain modern industries had called for the erection of buildings entirely different in character from anything attempted previously, and presenting problems, not only in the laying-out of the plan to ensure the best use of the area available, but also in the means to be taken to translate that plan into actual fact, and to make possible the smooth and orderly working of the building for the purpose for which it was designed. The influence of heavy traffic on structures old or new, the effect of the vibration of machinery on the buildings in which it was housed, and the difficulty of obtaining proper foundations in waterlogged or unstable ground—these and many similar problems lay outside general architectural practice and experience, and required the special training of the engineer for their solution. Such a division of duties must not be regarded as derogatory to the position and authority of the architect, nor as an attempt on his part to place upon other shoulders the responsibility he ought himself to bear. Generally speaking, the scope of the two professions was too wide, and the standard of professional education and attainment demanded by the governing bodies was too severe for one man to succeed both in architecture and in engineering.

The best results, so far as the intricacies of modern building construction were concerned, were to be derived from the collaboration of the architect and the engineer. The engineer to be employed should be an independent consultant. The practice had obtained in some quarters of inviting estimates from specialist constructors who not only built but designed the work as well. This arrangement was unsatisfactory on many grounds. In the first place, there was not the same guarantee to the building owner that the work was economically designed as there would be with a professional adviser. That particular aspect of Providence which was known as the factor of safety might excite, in the mind of the constructor-designer, such respect and awe that he felt bound to pay deep reverence to it, even in his calculations. Secondly, the system of carrying out work through constructor-designers was open to the objection that it was an attempt to amalgamate in one business the professional duty of designing to the best advantage of the undertaking and the purely commercial transaction of selling goods for profit. The two operations were quite dissimilar and their interests incompatible. Lastly—and to the surveyor, perhaps, the most important argument—it removed the constructions so designed from the healthy influence of competitive tendering.

The consulting engineer's drawings, and the quantity surveyor's bills of quantities calculated from those drawings, together formed the best guarantee the employer could require that his building would be both scientifically sound in construction and economical in cost. The contractor, too, had the advantage of keeping in his own hands and under his own control, work for which he was in all probability quite as well equipped and as competent to undertake as the specialist firm. The duties of the surveyor in regard to engineering work introduced into building contracts were the same as in the case of ordinary building operations, except, of course, that descriptions in bills and methods of presentation of quantities must be adapted to the actual processes required to produce the engineer's designs. Practice was the guiding principle, not precedent. In this connection, it might be matter for consideration by the Council of the Institution whether the scope of their professional examinations should not be extended, and the syllabus for those subjects which dealt with construction and building materials revised (at any rate for the final examination), so as to ensure that candidates possessed a practical knowledge of modern developments in the conduct of building operations.

He had referred to engineering only in so far as it was ancillary to architecture. There was the wider field of civil engineering proper to consider, embracing such major works as docks, harbours, sea-walls, jetties, roads, bridges, railways, sewers, barrage schemes, etc. These operations were generally undertaken as public utility works on behalf of some public authority or harbour board; but it was to be hoped that the long overdue improvement in trade, when it materialised, would encourage private enterprise to launch similar schemes, not as temporary expedients in relief of unemployment, but as real contributions towards the return of national prosperity.

THE WEEK IN PARLIAMENT

WESTMINSTER, Wednesday.

Rent Restrictions.

AN attempt was made by several Unionist members last week to induce the Government to declare their policy in regard to rent restrictions. Sir Kingsley Wood moved to delete from the scope of the Expiring Laws Continuance Bill which prolongs certain Acts of Parliament for another year the Rent Restrictions Acts. He asked the Minister of Health whether he had any statement to make concerning the Government's intentions.

Mr. Greenwood said he regretted he was not in a position to make a considered statement. The problem was a very complex one and needed more consideration than the Government had been able to give it up to the present.

Sir Basil Peto described this reply as unsatisfactory. No arguments had been advanced to show that the Acts were beneficial and ought to be continued. If it was a question of "ending or mending" the Acts, it would be better to end them. They constituted an anachronism. In many cases they stopped altogether the winding-up of estates. They hampered building development, and they dealt with a rateable value which in many cases bore no relationship to the rateable value of property to-day. They protected tenants who made a business of subletting property which belonged to others, they kept out of their own property the owners of single houses. Finally, the Acts did nothing whatever to increase the housing accommodation of the country.

Eventually the amendment to delete the Acts was negatived. The Acts, therefore, will continue in force for another year.

Price of Houses.

Mr. Greenwood informed Lt.-Col. Fremantle that the following statement showed the average price of parlour and non-parlour houses respectively included in contracts let by, or in direct labour schemes of, local authorities in England and Wales during each of the months of May and October, 1928, and May and October, 1929.

Month.	Parlour houses.	Non-parlour houses.
1928.	£	£
May ...	445 ...	372
October ...	427 ...	369
1929.		
May ...	406 ...	344
October ...	419 ...	344

Caravan Dwellings.

A number of members asked whether in view of the difficulties which were being experienced by local authorities with respect to caravans and other similar dwellings and the permanent nature of many of these dwellings, the Minister would introduce legislation granting local authorities more extended powers to deal with such structures

Mr. Greenwood said his attention had been drawn to this matter and he had received resolutions from a number of local authorities. He was advised that most, at any rate, of the trouble could be met if local authorities exercised more thoroughly and vigorously the powers which they now possessed, and he was not satisfied that further legislation was needed.

Alleged Overcrowding in London.

Mr. Naylor asked the Minister of Health whether any representations had been made to him by the Southwark Borough Council in respect to the overcrowding existing in that borough; and whether any steps could be taken to expedite measures for the relief of the present housing situation in south-east London generally.

Mr. Greenwood said the answer to the first part of the question was in the negative. The London County Council were carrying out a large programme for relieving the housing shortage in the county generally, including a number of schemes for providing housing accommodation in the inner parts of London. The legislation which he proposed to introduce shortly would, he hoped, make it easier to relieve the congestion in Southwark and similar densely populated areas.

Rating Authorities.

In reply to Mr. Kinley, Mr. Greenwood said that the number of rating authorities in England and Wales in 1914 was 15,660, and in 1929 was 1,794. Under the Rating and Valuation Act, 1925, the council of every county borough and of every urban and rural district was made the rating authority in their area to the exclusion of parochial overseers and other bodies formerly empowered to levy rates.

The total outstanding loan debt, after deducting sums standing to the credit of sinking funds, of these councils in respect of all the services administered by them, was £762,807,835 on March 31, 1928 (the latest date for which figures were available), and £296,174,171 on March 31, 1914.

Litter.

Mr. Ede asked the Home Secretary if he had received any applications from any local authorities whose areas lie wholly or partly within the Metropolitan police district for sanction to a by-law prohibiting the littering of public places and open spaces with waste paper; and whether, within the Metropolitan police district, he was prepared to authorise the detection of offenders against the by-law being regarded as one of the standard duties of the Metropolitan police force.

Mr. Clynes said that there were several by-laws relating to the deposit of litter in public places in force in different areas of the Metropolitan police district, but he presumed Mr. Ede referred to the new form which had recently been prepared. Applications for this by-law had been received from a few authorities in the Metropolitan police district, and in any case where this by-law was adopted, the police would undertake to report to the by-law-making authority such offences as came to their notice in the course of their ordinary duties. There was no power to arrest or detain anyone for breach of such a by-law, and the main responsibility for enforcing the by-law and instituting proceedings when necessary would remain with the authority who made the by-law.

The Haig Statue.

Lieut.-Col. Moore asked the First Commissioner of Works whether the expenditure incurred to date on the Haig memorial statue was in excess of the original estimate of expenditure on the selection and preparation of preliminary models; and what changes had been recommended by the assessors in the model that was accepted by them.

Mr. Lansbury said the expenditure incurred to date exceeded the original estimate of expenditure on the selection and preparation of preliminary models by £500, the amount the department had agreed to pay the sculptor for the second and larger model. The assessors had recommended that the base of the original design should be redesigned and that modifications should be made in the equestrian group with the view of meeting certain criticisms which had been made.

Rural Amenities.

Mr. Marjoribanks asked the Minister of Transport whether the Central Electricity Board, for the sake of preserving rural amenities, would consider the laying of underground instead of overhead cables on any part of the work about to be undertaken in East Sussex under the Electricity (Supply) Act, 1926, either along the main or subsidiary lines of supply.

Mr. Morrison said he had no reason to doubt that the Central Electricity Board would consider all reasonable methods of erecting their lines so as to interfere with amenities as little as possible. No electricity lines might be erected above ground without his permission, and, before giving his permission, careful consideration would be given to the views of the local authorities interested.

SOCIETIES AND INSTITUTIONS

BIRMINGHAM A.A.

On Friday, November 22, lectures on "Slates and Slate Quarrying" were delivered at the School of Architecture, Margaret-street, under the auspices of this Association, to the students of the Birmingham School of Architecture and the junior members of the Association. The lecturers were Captain M. I. Williams-Ellis, F.Inst.Q., A.M.I.M.E., and Mr. Hadleigh Seaborne, F.Inst.Q., and the subject-matter was well illustrated by means of lantern slides and samples. An outline of the geological formation was given, followed by a descriptive account of slate quarrying and the method of working to obtain the finished product. Many useful and informative hints were given on the choice of slates, and the lecture was much appreciated by all present.

THE PARTHENON.

SIR BANISTER FLETCHER, P.R.I.B.A., lecturing on the Parthenon, on Wednesday evening, November 27, at the Central School of Arts and Crafts, reviewed the historical events and the final victories of the Greeks over the Persians, 480 B.C., which led to the building of the Parthenon. Pericles (he said), the great Athenian administrator, then determined to give material expression to the national exultation by erecting a votive temple to the goddess Athena, who had given them the victory, and architecture and sculpture were called to the service of the state. The Acropolis rock at Athens, no longer wanted as a military fortress, became the enclosure sacred to the gods, and the Parthenon occupied the most prominent position on this most famous site. The lecturer referred to the fine gleaming marble in which were executed the delicate and exact forms so specially characteristic of this most marvellous of all Doric temples. Thus could architects and sculptors create the harmony and symmetry of design in column and architrave, roof and pediment, moulding and ornament, frieze and metope, colour and sculpture, which went to the making of the Parthenon. By the aid of many lantern views the lecturer described the details of the delicately-carved frieze of the Panathenaic procession, which, he said, vibrated with Athenian life. Knights and musicians, priests and youths, matrons and maids, cavalry and chariots, magistrates and gods all took part in presenting the new "peplos" or robe to the maiden goddess, guardian of their city—a ceremony vividly brought to mind by this sculptured panorama which gave added value to this historic building, now in ruins, which spoke but dimly of its former glory.

SOUTH WALES INSTITUTE OF ARCHITECTS.

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) a lecturer on "Building Materials" was delivered at the Engineers' Institute, Cardiff, on November 28, by Professor W. Norman Thomas, M.A., D.Phil., A.R.I.B.A., Professor of Engineering, University College of South Wales and Monmouthshire. Mr. J. E. Turner, J.P., F.I.O.B., who presided over a large audience, drew attention to Professor Thomas's work at the University, where courses for builders leading to a degree had been established. The lecturer gave much valuable information regarding the best materials to be used for particular purposes, together with the treatment under various circumstances which would give the best results. References were made to instances of stone decay in various buildings in Cardiff, and the lecture was illustrated by lantern slides and various exhibits.

A vote of thanks was carried on the motion of Mr. C. F. Ward, F.R.I.B.A., of Newport, seconded by Mr. D. Sibbering Jones.

THE TOWN PLANNING INSTITUTE

PRESIDENTIAL ADDRESS

AT the first meeting of the session of this Institute, held at Caxton Hall, Westminster, on November 22, Mr. Barry Parker delivered his presidential address, which took the form of a paper entitled "Where We Stand." The President said they must realise that on every town a tax was levied which was entirely unproductive to, and was merely a drain upon, the townspeople, unless they owned the land upon which the town was built, or that land was held in trust for their benefit. This tax was the return on the improved values of land, created by the establishment and spreading of towns, and it was paid to ground landlords and speculators. So far as the townspeople were concerned, the money raised by this tax was as completely lost as it would be were it sunk in the deep seas. No services and no advantages of any kind were procured by paying it. It was a burden borne without compensation, and the payment of it reduced the funds available for any and every public enterprise. This tax was increased whenever any site was sold, leased or rented at an enhanced price, ground rent or rent. As every town grew, the contribution of each of its citizens automatically increased in amount. This was no indictment of landowners, who were the victims of a system under which Peter was robbed so that Paul might be paid.

They did not always appreciate that the creation of an open space, dedicated to the use of the public in perpetuity, entailed no loss except the loss of the agricultural value of the land dedicated, unless it also entailed the loss of parts of moneys spent on streets and sewers, or on gas, water and electricity mains which served the land dedicated; or losses through the demolition of buildings standing on it, and might not even entail the loss of the agricultural value. The enhanced value of land, created by its urbanisation, was not diminished by some of that land becoming an open space; it was spread and it was transferred to other land. Some of it was transferred to adjoining land, and some of it might be transferred to land far away on the outskirts of the town in which the open space was created, but none of it was lost. All enhancement of values of land, by the establishment or increase of a town on that land, was the outcome of economic forces. These forces were not diminished by some of that land being an open space. Their operation was transferred to other land and that was all that happened. Yet the owner might say, "I can sell this piece of land for three thousand pounds to-morrow, and you ask me to give it as an open space; this means my giving away three thousand pounds and that is all there is to it." So though, where sufficient land was in one ownership the owner could dedicate part of it as open space with the knowledge that every increment of land value would only be transferred to other land of his, if he did not own sufficient land, he knew that no increment value in the land dedicated would be lost, but it would be transferred to land in other ownerships. After all, to create open spaces tended to reduce densities, and experience had amply shown everywhere that the effect of reducing densities was not to diminish land values but to distribute land values, and, not only this, but was actually to create new land values by bringing more land from "agricultural value" into "building value." There was still another, and quite different, way in which higher land values were created by the provision of open spaces. Generally speaking, wherever land had been dedicated as a park, the values of lands adjoining it, and in its neighbourhood, had been greatly enhanced because of their attractiveness created by their proximity to that park. The promotion of a town planning scheme did not diminish the total values of the land to which it related. Its effect was to define, and to make it possible to determine, which land had been enhanced in value and which diminished. Its effect in most cases would be to increase the total value of the land to which it applied and it would always be to add to certain lands at least as much value as it took from other lands. And yet, as the law now stood a town planning authority ear-marking an open space had to pay the owner of the land ear-marked the capitalised value of his prospects of sharing in the proceeds of the tax he had spoken of. So the community had to pay the landowners as a whole twice over for the prospective increase in value of the land ear-marked for a park, once on ear-marking the land, and again by making a free gift of it to the owner of the land to which it was transferred. Moreover, the town planning authority thus paid twice for something it did not want and did not get. Once dedicated as a park or restricted to use as an open space, the prospective increase in value of a piece of land had been transferred to other land. So the town planning authority did not get what it paid for. Under the Town Planning Act only one-half of the increase in the value of land surrounding the open space, which was due to the amenity added to it by the provision of the open space, or of the value transferred could be recovered as "betterment." There were manifest injustices in all this which should be removed. Moreover it was mutilating and spoiling every town planning scheme.

It would seem that town planners of to-day had six great difficulties, and that the parkway offered the solution of them all: (1) How to provide motor roads on which cars could travel speedily, safely and uninterruptedly; (2) how to increase land values when new roads were provided; (3) how to prevent the disfigurement of new roads by mean buildings; (4) how to check ribbon development; (5) how to secure increased safety for pedestrians and for children going to school; (6) how to procure agricultural belts which would not come to consist of unseen back land.

Parkways radiating from towns would not suffice to overcome this last difficulty. They must have outer and inner ring roads, circumferential roads, orbital roads and by-pass roads round towns. These roads also must be parkways, separating one part of a town from another part, one town from another town, and separating towns from communities established outside them, and so taking the place of agricultural belts. There was much misgiving as to the possibility of an agricultural belt remaining unbuilt upon. Some held that nothing short of absolute prohibition of building of any kind on an agricultural belt would suffice to maintain that belt unbuilt upon. Others said: "It has been demonstrated that twelve houses to the acre could be secured and maintained by means of zoning regulations and by means of Acts of Parliament. If twelve houses to the acre can be secured and maintained, then why cannot twelve acres to the house in an agricultural belt?" These people were told: "If new building is permitted and new houses and cottages may be erected when needed, on farms, small holdings, allotments, playing fields or parks in an agricultural belt, these will inevitably multiply until the agricultural belt comes to be no longer open."

With all through and fast traffic confined to parkways it was easy to plan so that no child would cross a main traffic route on its way to or from school, and the pathways and cycle tracks in parkways would be perfectly safe for children. Great motor roads would come. Modern conditions would render this inevitable. They were coming as great scars on the countryside fringed with mean buildings in long strings mile after mile. Having referred to some of the disadvantages of these roads, the lecturer said if parkways were substituted for these "scars on the countryside," development would not be along them, it would be "in behind" them. It would be "grouped," it could not be "ribbon" development. Ribbon development followed their arterial roads to-day because these roads provided means of access to it, and frontages for it. Parkways not providing means of access to and frontages for ribbon development, it could not follow them. The provision and maintenance of the parkland in parkways need cost but little. It had agricultural value before the roads were made. Its increased value, created by the roads being made, was transferred to land which bordered on it, and, in addition, this value was augmented by the parkland being left open and unbuilt upon.

The President exhibited photographs of the great parkway of Westchester County, U.S.A., and said the way in which the creation of parkways in America had increased the value of the land through which they passed was astounding. Architectural control could only be effectual if it came (as at Washington and Oporto) as affording opportunities to use influence and persuasion, to make suggestions and give advice before definite proposals had been formulated or finished drawings had been made.

Dr. Raymond Unwin, in proposing a vote of thanks dwelt at considerable length on the difficulties of town planning due to the claims of landowners for prospective building value. These problems were not new, but it was still up to them to put their brains into the common stock and see whether out of a multitude of suggestions they could not evolve practical methods to surmount these difficulties. They needed regional committees to devise regional schemes, but there was no reason why local authorities should be deprived of the power to make individual schemes for their own areas. With regard to planning, they were up against this prospective building value, which, to quote from "Alice in Wonderland," he would term the "jam to-morrow." It was this which scared them off when they began to deal with open spaces; for the landowners were living in a land where "jam to-morrow" really came. Land had two quite separate values. There was the value based on revenue from its use as agricultural land, and that did not worry them, as it was easily assessed. But, in addition, they had the purely prospective value, and even this had to be divided into three categories, if they were to understand it properly. There was the increase of value which came by retaxation, but this, whilst of political and economic importance, was not what they came up against. If they had a town surrounded by a belt of open space, that town would grow, so long as they allocated adequate ground for building purposes, whether they reserved 20 per cent. of the land for open spaces or not. The prospective value of the land reserved passed to the other land, and he contended that the owner who got only a thin layer of jam on his slice of bread should look for his share from those who got more. He believed the landowners recognised the fairness of that, but what they said was: "How are you going to adjust it between us." He agreed it was not easy, but thought it could be done by valuation, and that they were entitled to call on landowners and their advisers to help them solve the problem. The question of improved value due to a public improvement was a different matter, and should be kept apart. What he did feel anxious about, from the town planning point of view, was that the three different principles might be rolled up into one and handled in the form of a general tax on land values. If the tax went to the Chancellor of the Exchequer it would be as much out of reach in helping them in town planning as it was when it went into the pockets of the landowner.

Mr. G. L. Pepler said the President had

quoted from a letter by Mr. Thomas Adams to the effect that so far as statutory town planning was concerned, they had gone back. He did not agree with that, for a tremendous lot of good work had been done, although, of course, some of it might have been done much better.

Mr. Marsden (City Surveyor, Bradford) said if they took a site of 100 acres, on which they allowed 12 houses to the acre, and they reserved 20 acres of this for open spaces, he did not see how the other owners were going to get increased value, unless they were allowed to build more than 12 to the acre. They had heard a great deal about the American parkways, but it would mean a revolution in the law of this country to say that a person with property on the public parkway should have no right of access to it.

Mr. E. R. Abbott thought the landowner had been somewhat badly treated in the paper. He deprecated the use of the phrase, "landowners and speculators," for all of them were speculators in some way or another, and there was something to be said for landlords and speculators in that it was due to them that the bulk of the population of the country was housed.

The resolution was passed and the president briefly replied.

LAW REPORT

KING'S BENCH DIVISION.

Before Mr. Justice Wright.

ARCHITECT'S ACTION FOR FEES.

Ruthen v. L. A. P., Ltd., and K. Redgrave.

THIS case was an action by James Sidney Ruthen, an architect, of St. James's-street, Bedford-row, London, W.C., against L. A. P., Ltd. (London Amalgamated Properties, Ltd.), and Mr. Kenton Redgrave, of White Lion-court, claiming £1,264 17s. 11d. balance due for work done as architect for the defendants between December, 1927, and July, 1928. He alleged that Mr. Redgrave gave him verbal instructions to do the work in connection with a scheme for converting the St. Ermyn's Hotel, W., into flats. The work would cost about £40,000. Since July, 1928, plaintiff had regarded himself as being employed by, and had received payment from, another company which had taken over the scheme. His claim included a sum representing six per cent. on the contract prices and £624 16s. 1d. for measuring up.

Judgment had been secured against the company, but the order had not been drawn up. Mr. Redgrave was added as co-defendant by leave of the Court.

Mr. Redgrave's defence was a denial that he ever gave the order for Mr. Ruthen to do the architect's work. If he did so, he claimed, he gave the order as agent for the company. Any work that Mr. Ruthen did was done for the company and not for him. Mr. Redgrave also pleaded that the plaintiff had already issued a writ against L. A. P., Ltd., and having thus elected to proceed against them was debarred from claiming against Mr. Redgrave.

Mr. Gilbert Stone appeared for the plaintiff and Mr. Gilbert Beyfus for the defendant, Mr. Redgrave.

His lordship dismissed the action with costs as against Mr. Redgrave, and said the L. A. P., Ltd., had not said that it was Mr. Redgrave who would pay.

The New Foundling Hospital Site.

The Governors of the Foundling Hospital have completed the purchase of the Ashlyns Hall estate, at Berkhamsted, to which, in due course, the hospital will be transferred. The estate, which is in easy reach of London, consists of 200 acres of open land on a high and healthy site. Building will not be begun for a year or two, it is understood, as the plans will take a long time to prepare.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—ED.

Profit Basis.

SIR,—I am principally engaged in restoration, renovation and decoration work, generally on old properties. Taking an average job of £500, I work on a 15 per cent. basis and also make an item of "use and waste plant, and wear and tear of brushes," approximately 1 per cent. These profits often have to cover a fair amount of office work in detail drawings, etc., for joinery and such work, and I feel convinced that the figure is hardly sufficient, although some clients say it is too high. Observations would be esteemed by

A. BUILDER.

Water-pipes.

[REPLY TO "PIPE," NOVEMBER 29.]

SIR,—Under the requirements of the London Water Authorities, 5 lb. pipe would be $\frac{3}{8}$ in. diam., 6 lb. $\frac{1}{2}$ in., $7\frac{1}{2}$ lb. $\frac{5}{8}$ in., 9 lb. $\frac{3}{4}$ in., 12 lb. 1 in., and 16 lb. $1\frac{1}{4}$ in.

COMPANY'S STRENGTH.

Crushing Strength of Bricks.

[REPLY TO "TEST," NOVEMBER 29.]

SIR,—Mitchell gives the crushing strength of Flettons as from 169 to 239 tons per square foot, and that of an average stock from 12 different sources in London as from 89 to 185 tons per sq. foot. In the case of Flettons, the manufacture of which is being continually improved, there may be later and even more satisfactory results than the above. Inquiries from the makers might be desirable.

FIGURES.

Elm Weather-boarding.

[REPLY TO "INEXPERIENCED," NOVEMBER 29.]

SIR,—Elm is one of the few timbers which shrinks endways of the grain, and it is virtually impossible on an exposed site to make it weather-tight without a thoroughly tight coat of felt and boards under it. This is the first source of trouble to investigate in circumstances where this form of construction has given trouble.

WEATHER-TIGHT.

Thatching.

[REPLY TO "COUNTRY," NOVEMBER 29.]

SIR,—Straw thatch is very durable if protected by wire netting against the birds. It also goes a beautiful silver grey colour with age. Reed thatching is practically everlasting, but has not so pleasant a colour as straw. Heather thatching is cheap but somewhat rough in appearance and not happy in colour. Chip thatching does not attract the birds, but is liable to rot. Provided chimneys are carried up at least 6 ft. above the ridge, there is little risk of fire from this source. Fire generally starts from within in all buildings, and by the time it has reached the outer roof covering things are in a bad way, whether there is thatch or tiling.

RUSTIC.

Re-surfacing Asphalt Floor.

[REPLY TO "B. G.," NOVEMBER 29.]

SIR,—Asphalt can be given as hard a surface as required, and this is obviously the best material to apply to an asphalt floor, especially where the thickness has to be so slight as $\frac{1}{2}$ in. I should advise your correspondent to consult a good firm of asphalt specialists, preferably the original layers of the floor.

LIKE TO LIKE.

SIR,—Why not a $\frac{3}{4}$ in. wood block flooring set in mastic, stained and polished, and save surfacing and lino, or, if it can be afforded, an oak block flooring at 11s. 3d. square yard? Either would show off the furniture, rugs, carpets, etc., to advantage and is practically everlasting.

MASON & MASON.

Opportunities Abroad.

[REPLY TO "QUERIST," NOVEMBER 29.]

SIR,—I have no experience of Australia or Canada, but so far as America is concerned I can say that the methods of quantity surveying are very different from those obtaining in this country. It depends very largely upon the adaptability of the emigrant whether he can absorb the new methods quickly enough. The same naturally applies to the estimate. Draughtsmen of first-rate ability are always in demand, and there is less difficulty about picking up the new methods in this case, for surveying is, after all, 90 per cent. method, while architectural draughtsmanship is much more than this. Wherever possible I should recommend the technically trained in this country to remain where their training can be most fully applied.

SAPIENS.

Asphalt.

[REPLY TO "ASPHALT," NOVEMBER 29.]

SIR,—I am obliged for your correspondent's assurances as to my fears, but as the cases I have in mind have been the work of generally accepted specialists in the first class of choice, I fear he has not completely satisfied me. It would be a great help if your correspondent could tell us how the architect can prove conclusively to himself when he has been served with natural rock asphalt and when not.

ANXIOUS.

Chimney Dampcourses.

SIR,—Have any of your correspondents experienced trouble with their newly erected chimneys during the recent bad spell of weather? There seems to be a weakness between the dampcourses, which are usually placed one above the ridge and others stepped down roughly to the slope of the roof. Such a method inevitably leaves small areas of surface which conduct moisture through within the roof space. In the case of highly porous bricks this seems sufficient to collect in quantity and soak down to the upper ceilings. Is there any royal road towards eliminating this fault?

EXPERIENCED.

Hollow Breeze-block Walls.

SIR,—Will you please let me know if, in your opinion, walls constructed with 8 in. hollow breeze blocks rendered with cement and sand and rough-cast externally are impervious to a driving rain? My experience is that a driving rain will even percolate through brick walls, but I should like to have your considered opinion on the damp-resisting qualities of breeze block walls as above.

J. P.

Damp Walls.

SIR,—During this wet weather we are troubled with considerable dampness on the party walls of certain houses built in the last two years, whilst the exterior (cavity) walls remain quite dry. The extraordinary thing is that above the picture-rail (where it is not papered, and in the roof, the same wall is perfectly dry. The walls in question have a four-ply damp-proof course and are finished with fine sirapite. No sea-sand has been used for the work. We should be glad to know if any of your readers have had a similar experience, and could state the cause and remedy.

"IN TENEBRIS."

Waterproofing Brickwork.

SIR,—I have a house in the country built of multi-coloured bricks which are of a very porous nature. Whenever there is a driving rain the inside of the walls are very wet. I have heard that there is a transparent solution for external application which will stop up the pores of the bricks without altering their colour. Can you tell me where this is obtainable?

W. W.

THE BUILDING TRADE

RECURRING DEFECTS: THEIR CAUSE, PREVENTION AND CURE.—XXIII

By J. R. TAYLOR.

SMALL COUNTRY-HOUSE OR COTTAGE FITTINGS.

AT first sight it may be thought that some of the points made in the following article are hardly in harmony with my main title, hence the sub-title; but when it is remembered that much damage may be done by amateur efforts to make good deficiencies that forethought would have avoided, perhaps the departure may not be out of place after all.

RAINWATER STORE.—In the country a very high value is placed on rainwater and endeavour made to store it where possible. In the case of a cottager, this cannot be said to be adequately met by the provision of a large cask or barrel which falls to pieces in dry weather and loses most of the rainfall by overflowing in wet. In the case of a rather larger house, a large galvanised iron tank is sometimes provided, but even this does not properly meet the requirements. Soft water from roofs attacks lead and zinc, and consequently galvanised iron is not suitable for storage purposes, nor are lead-lined cisterns. Unless on a considerable scale with filtering compartments and other fittings, underground storage has several disadvantages. Reinforced concrete seems to meet the case better than most other materials, and if early consideration is given to it, the following method need not be unduly expensive. If, as is usually the case, a portion of the house is only one story high, it may be roofed with concrete laid flat and with concrete walls added to a height of three or four feet; it will thus form part of an ample cistern. On account of the load, however, due regard must be had to the adequacy of the foundations. In some cases it may not be desirable to tie the walls of this part of the building into the main building, but to adopt other measures for making a watertight joint. The cement used in constructing the tank should be waterproof, and great care exercised in grading the aggregate.

CLOTHES POSTS.—Much damage is caused by amateur attachments to door and window frames, lintels and wall-plates, etc., for clothes lines. Stalks of rainwater pipes are brought down and the joints of soil pipes disturbed by the repeated pull imparted by a few wet sheets on a gusty day. The commendable custom of blocking off these stalks from the wall so as to permit access to the back of the pipes when painting is interpreted as an invitation to tie clothes-lines to them. Properly socketed clothes-posts are not a very costly item, and the expense of installing them will be saved over and over again by reduction of maintenance charges.

DRY CLOTHES AIRER.—With her more intimate knowledge of domestic requirements, none of our lady architects would omit to provide a means of drying or airing clothes in the country house or cottage. This usually is a light wood frame that pulls up to the ceiling with pulley and cord. It should be arranged for before the plastering is finished, and it may mean some slight modification of the position of window or cupboard on plan if it is remembered that it will require to be neatly housed.

CLOAK RAILS.—In the average small house, whether in town or country, it is seldom that the problem offered by the satisfactory disposal of outer clothes is solved, more especially in the winter. All are familiar with the ordinary hall-stand with branching arms, a box for the clothes-brush, and two umbrella and walking-stick receptacles. Most of us have seen this supplemented by a painted drain-pipe. Funds do not as a rule permit of a separate cloak-room. A solution that appeals to me is to form a recess off the hall in the same way as is often done for a recessed fireplace on an outer wall. This recess can be roofed off at first-floor height, or, better still, be carried up to finish under the projecting eaves, and thus form a very useful cupboard space on the first floor.

LARDER FITTINGS.—A piece of 1½ in. galvanised tube built in at both ends below the ceiling makes an excellent meat rail. No architect needs reminding that the bottom shelf in a larder should have greater width than the others, but it is worth remembering that it should be of really substantial construction (preferably slate or stone on piers), as it is invariably called upon to bear the weight of persons standing on it to clean the top shelves and to hang things up to the ceiling. I may also mention that for the same reason the lower part of a kitchen cupboard should project beyond the upper half, as people will climb up to the top shelf, and it is better and easier to provide for this habit than to attempt to get them to change it.

In the layout of the larder shelving regard should always be had to the meat safe; mass-produced by cheap labour, this can be purchased at half the price it would cost a builder to make. To avail oneself of these to the best advantage, it is necessary to accommodate them in stock sizes.

THE COALPLACE.—More commodious accommodation is required for coal and firewood in the country than in the town, as even the country cottager buys his coal in bulk. The coalplace should have a shelf and hook-rail for garden tools, unless other storage is provided. It is a good plan to ceil and board it roughly at about 6 ft. 3 in. in height and form an opening above, which may or may not have a door. This space is very useful for storing garden netting and such like. I have never yet looked over premises that have been occupied for some length of time without finding some trace of damage caused by chopping up firewood. This damage, though most frequent and extensive in the cottage, is by no means confined to small houses, but will be found even in the mansion. Human nature being what it is, it would not be entirely stopped by the provision of a suitable block, but it would be minimised. Even in oak, a short piece cut from a treetrunk is not a very costly item, and, set in concrete outside the coal-house door, or inside if the coal-house is roomy, it would effect a great saving in the repair bills.

PROVISION FOR WALL FRUIT OR CREEPER.—Despite all warning as to the damage done to brickwork and pointing, and to plastering also, by reason of damp admitted, we cling to tradition in the country and insist on training fruit-trees or creeper up the walls of house and cottage. This being inevitable, it is better to recognise and prepare rather than ignore it. If the house is rough-casted or cement-rendered, small galvanised slips can be obtained for the purpose with an eye in them to receive a training wire. If these are put in while the cement rendering is proceeding, much damage is obviated.

LETTER-BOXES.—I watched the local postman delivering letters the other day. He was in constant trouble, due to the letter-plates being much too small. Knocking, and receiving no answer, he resorted to pushing the larger-sized envelopes under the door. In many cases he was successful in this, owing to the worn stone step. The small letter-plates are undoubtedly a survival of the times when correspondence was much less bulky than at present. An even worse point is that, opening into a narrow passage there is no room properly to house the letter-box in many cases, and considerable damage is done to the wall plastering in consequence of this. A recess a little larger than the box and half-brick deep gets over the difficulty, but it is much more costly to cut and line this recess after the house is built than to provide it in the first instance. Where doors open back on walls it is but seldom that a door-stop is thought of until the projecting furniture has damaged the plastering.

UPSTAIRS CUPBOARDS.—The architect, of course, knows all about wardrobe hooks and other fittings, or, at all events, he will find them illustrated in the catalogues. What, perhaps, he does not know is that the speculative builder has robbed him of many a client by the simple device of using a large piece of silvered plate glass as a panel to a cupboard fitted up as a wardrobe. He will get a bit of his own back if he remembers that although he may not be able to afford to cupboard every recess upstairs, it will not cost much to put in a shelf at picture-rail height and carry the picture-rail along the front edge of it.

DEMOLITION OF BUILDINGS:

L.C.C. BY-LAWS.

The London County Council, on July 23, made by-laws under Section 53 of the London County Council (General Powers) Act, 1927, with respect to the demolition of buildings. The by-laws were confirmed by the Minister of Health on November 4, 1929, and are now in operation. They are as follows:—

1. Every person shall, in relation to the demolition of a building within the County of London exclusive of the City of London and the places known as the Inner Temple and Middle Temple, comply with the following rules:—

(1) He shall cause proper fans to be fixed at the level of the first floor of the building undergoing demolition and of every other floor where necessary to prevent nuisance or danger arising from dust or debris. Before any pulling down is commenced, he shall cause all windows in the external walls from which sashes and glass have been removed to be boarded up unless a gantry be constructed, and the upper portion of such gantry boarded in to the full height of such building.

For the purpose of this rule "gantry" means a temporary wooden platform, staging or similar structure erected in connection with the building to be demolished over the footway or ground adjoining the building.

(2) He shall, so far as practicable, cause the internal partitions of such building to be pulled down story by story before commencing to take down any of the external walls of the respective stories.

(3) He shall cause canvas or boarded or other suitable screens or mats to be placed wherever necessary to prevent nuisance arising from dust.

(4) He shall, so far as is necessary to prevent nuisance arising from dust, cause water constantly to be used on each floor during the demolition of such building and all materials to be freely sprinkled with water.

Provided that this by-law shall not apply to any building or part of a building which

shall be more than 20 ft. from a public way or public open space and more than 40 ft. from any other building.

2. Every person who shall offend against the foregoing by-law shall be liable for every such offence to a penalty of five pounds and in the case of a continuing offence to a further penalty of forty shillings for each day during which the offence may continue after written notice of such offence from the Metropolitan Borough Council in whose district the offence shall be committed. Provided nevertheless that the Court before whom any information may be laid or any proceedings may be taken in respect of any such offence may if the Court think fit adjudge the payment as a penalty of any sum less than the full amount of the penalty imposed by this by-law.

PRIVATE STREET WORKS

Charge on Property.

THE recent decision of the Court of Appeal in the case, Donnerly *v.* Prestwich Urban District Council, at present only briefly reported in the *Weekly Notes*, November 2, raises a question of considerable interest to those purchasing land on any street. In 1910 the urban authority had made up a street in their district under the Private Streets Works Act, 1892, and had made the final apportionment upon the owners of property liable under the Act. One of the owners had made default in making payment, and it does not appear from the report whether the urban authority had taken proceedings against him to recover the amount. In 1927, that is, 17 years after the street had been made up, the plaintiff in this action had purchased this land and had built five houses upon it entitled to subsidy by grant under section 2, subsection (3), of the Housing Act, 1923. The urban authority paid the grant on two of these houses, but from the grants due on the other houses had withheld a balance of £136 13s. 2d., the amount due for the street expenses, with interest, on the ground that this sum, under section 13 of the Private Streets Works Act, was a charge upon the premises. The plaintiff brought this action for the recovery of that sum, contending that the claim of the local authority was statute barred, but the Court below gave judgment for the defendants.

This judgment was affirmed by the Court of Appeal, and the decision appears to have turned upon section 14 of the Private Street Works Act, 1892, and section 8 of the Real Property Limitation Act, 1874. The former section provides that the urban authority, if they think fit, may from time to time (in addition and without prejudice to any other remedy) recover summarily in a court of summary jurisdiction, or as a simple contract debt by action in any court of competent jurisdiction, from the owner for the time being of any premises in respect of which any sum is due for expenses of private street works, the whole or any portion of such sum, together with interest . . . from the time of the final apportionment till payment thereof. The Court appear to have held that the respondents were entitled to recover the amount of the expenses and interest from the plaintiff, and therefore equally entitled to make a set-off, as being the owner "for the time being" of the land within the meaning of section 14, on the ground that a new cause of action arose at the suit of the respondent, the Council, when they made a demand upon him for payment (per Lord Justice Scrutton), when he became an owner or when demand was made upon him (per Lord Justice Greer), when he became owner (per Lord Justice Slesser), and that the appropriate statute of limitation only began to run from the time when the right of action accrued. The Court also held that section 8 of the Real Property Limitation Act, 1874, did not operate to defeat the claim of the respondents, because the period of 12 years prescribed by that section begins to run in favour of "an owner for the time being" within section 14 of the Private Street Works Act from the time when a present right has accrued to receive the amount from *him*, and not from the time when the right accrued to receive the amount from a former owner. (See per Lords Justices Scrutton and Greer; Lord Justice Slesser held the section to have no application, because the amount claimed was not "money charged upon or payable out of any land.")

We must reserve any comment on this case until it is fully reported in the Law Reports, but from the present brief report it appears to raise most serious questions. If proceedings are taken under section 14, it has, we believe, been assumed that the proceedings would be statute barred, if not in six years then in 20, when the proceedings were not summary (see a Note in the Law Reports to Hampstead Corporation *v.* Caunt (1903, 1 K.B. 1)) : the latter period would be longer than the time that had elapsed in this case, but that a new cause of action arises with a change of ownership is now, we believe, decided for the first time. If a local authority can delay taking proceedings against the existing owners at the time the final apportionment is made and rely upon the charge created on the premises for any number of years, the position seems serious, and we can only impress upon purchasers the necessity of seeing whether any charge is registered on the premises under the Land Charges Act, 1925, which will afford them protection from purchasing without knowledge of the liability. They can, however, only abstain from purchasing, and it appears from this decision that where the time has run to bar a claim against the owners in possession at the time the final apportionment was made, the charge may lie as an incubus upon the land until it is sold. Under section 13 of the Private Street Works Act, moreover, the local authority have ample powers to obtain payment, as they have "all the same powers and remedies under the Conveyancing Act, 1881, and otherwise, as if they were mortgagees having powers of sale and lease and of appointing a receiver"; and thus there seems no reason that they should neglect to take proceedings, either to recover the street charges directly from the original owner liable, or to enforce them as a charge upon the premises, within a reasonable time. Possibly a fuller report may throw more light on the effects of this decision, but in the meantime, purchasers of property on *any* street will do well to note it and take the precaution we have indicated of examining the register which has to be kept under section 13 (2) of the Private Street Works Act or under the Land Charges Act, for after such a lapse of time as occurred in this case it may not be apparent whether or not the road has not been a street within the Act at some time, with a charge still imposed on some of the premises.

A RATING QUESTION

THE case we referred to in a note under the above heading in our issue of August 23 last has been brought before the High Court by way of appeal from the stipendiary magistrate at Hull and is now reported in the *Times* of November 14, under the title Lowery *v.* Corporation of Kingston-upon-Hull. The decision of the magistrate was affirmed, but, as we shall show, an explanation was given by the Court which lessens the apparent hardship of the case. It will be remembered that the point raised by the house-owner was that as the rating authority had passed a resolution under section 11, subsection (1) of the Rating and Valuation Act, 1925, that in the case of all hereditaments in the City the rent of which is payable or is collected at less than quarterly intervals and the rateable value of which does not exceed £10, the owners should be rated instead of the occupiers as from April 1, 1929, and as under paragraph (a) a discount is to be allowed to owners who pay the amount due in respect of the rate before the expiration of one-half of the period in respect of which the rate is made (or if the rate is payable by instalments one-half of the period in respect of which the instalment is payable), or such later date as may be specified in the resolution, payment of the rate could not be enforced at least until the period had elapsed within which discount could be claimed.

By a resolution dated December 27, 1928, it was provided "that the dates by which rates in respect of compounded property shall be paid in order to qualify for the compounding allowance shall be July 31 and January 31 respectively." The general rate in question was made on April 11; a demand was made for £3 1s. 10d., the amount of the half-year's rate, on May 15, and the complaint was issued on May 30 for £1 10s. 11d. and a distress warrant issued on June 24 for that sum.

So far as we can see from the present report, in which the judgments are only briefly reported, no real question of principle was decided in the appeal, as the Court pointed out that in this case the rent was paid weekly and the rateable value did not exceed £10, and thus the case fell within sections 1 and 2 of the Poor Rates (Assessment and Collection) Act, 1869, which provide that no such occupier shall be compelled to pay to the overseers at one time or within four weeks a greater amount of the rate than would be due for one quarter of the year, and thus, although the demand was in form a demand for the half-year's rates, in fact it was really only for a quarter's rent due under the Act of 1869, and the complaint was only for the sum of £1 10s. 11d., which was the quarter's rate, and the Court on this point referred to the case Overseers of Walton-on-the-Hill *v.* Jones (1893, 2 K.B. 175), where it was held that where the occupier claims the privilege under the Act of 1869 of paying at one time only so much of the rate as would be due for one quarter, one written demand for the whole of the rate is enough.

Then on the question of discount, the Court pointed out that as the appellant had in fact been only required to pay a quarter's rate it was still open to her if she paid the second quarter punctually to obtain the allowance. Thus it appears that the decision removes the hardship which appeared to exist from the report of the case before the magistrate, on which we commented in our former note, as to the sum being recoverable within the time being given for discount, but it emphasises the complexity of the legislation. How could any laymen or laywomen be expected to find the clue to this labyrinth? It involved a study of the Acts from the time of Queen Elizabeth, and the ratepayer is not only expected to know that section 11 of the Act of 1925 is still qualified by the Act of 1869, but also to know that when a demand note claims a half-year's rates that may mean nothing, as acquaintance with the Law Reports would show him, and he is only called upon to pay for one quarter. Is it too much to ask that in demand notes, especially where they are made on persons occupying or owning small properties such as this, the nature of the application with a reference to the relevant sections of the various Acts should be made clear to the person liable.

Building Science Abstracts.

Abstracts Nos. 1983-2216 (Vol. II, New Series, No. 10), for October, 1929, have now made their appearance. Compiled by the Building Research Station, Watford, and published in conjunction with the Institute of Builders, the Abstracts may be obtained, price 9d., from any of H.M. Stationery Offices.

NEW BUILDINGS IN LONDON

Balham.—SHOWROOMS.—The L.C.C. has given consent to the erection of a garage and motor-car showrooms at 296-300, Balham High-road, Balham. The application has been made by Mr. W. Laffen.

Battersea.—STORES.—The Borough Council propose to erect new stores and buildings at the electricity department. The work is estimated to cost £5,750. The plans are in the hands of the Borough Engineer, Mr. T. W. A. Hayward, Municipal-buildings, Lavender-hill, S.W.11.

Becontree.—BUILDING.—The London Baptist Property Board, Ltd., are to purchase the site in Goresbrook-road instead of the Essex Baptist Association.

Bermondsey.—HOUSING.—The Bermondsey Borough Council has applied to the L.C.C. for sanction to the borrowing of £17,200 for the acquisition of a freehold site at Page's-walk for housing purposes.

Croydon. — EXTENSIONS. — Messrs. Grant Bros., Ltd., are to carry out considerable extensions to their premises in High-street and Surrey-street. The scheme also provides for the construction of two bridges over Middle-street to connect up the various buildings. Messrs. Hall-Jones and Dewhirst, Parliament-mansions, Victoria-street, S.W.1, are the architects.

Deptford. — ALTERATIONS. — A scheme of alterations is to be carried out at the Railway Tavern public-house in Hamilton-street.

Deptford.—INSTITUTE. — The L.C.C. has accepted the estimate of Mr. Albert Monk, of Lower Edmonton, N.9, for the erection of the South-East London technical institute. The plans are by Mr. G. Topham Forrest, F.R.I.B.A., architect to the Council. The price of the accepted tender is £108,666.

Edmonton.—SCHOOL.—The Urban District Council has decided to proceed with the erection of the new elementary school in Hazelbury-road. The school will consist of three departments, each to accommodate 480 children.

Eltham.—HALL.—The Trustees of the Page estate, Eltham, are considering the erection of a mission hall in Kidbrooke-lane, Eltham.

Herne Hill.—SHOPS.—Mr. A. W. T. Richards, building surveyor, 169, High-road, S.W.12, has submitted an application to the local council for the erection of shops adjoining the rear of 71, Park-road, to abut on Croxted-road. The application was approved.

Leadenhall-street. — ALTERATIONS.—Messrs. Barclays Bank premises at 113-116 are to be reconstructed. The scheme has been planned by Messrs. Campbell Jones, Son & Smithers, architects, 9, Dowgate-hill, E.C.4. Messrs. Canonbury Construction Co., Ltd., Canonbury-street, N.1, are the contractors. Their estimate amounted to £25,000.

Lewisham. — PREMISES. — Messrs. W. H. Gaze & Sons, Ltd., builders, of Kingston-on-Thames, are erecting premises in Nightingale-grove.

Lewisham.—SCHOOL.—A school is to be built in Moorside-road, Lewisham, S.W., to the plans submitted to the Lewisham Council by Mr. J. N. P. Colan.

Old Broad-street.—ADDITIONS.—Large extensions are to be made to the headquarters of the Anglo-South American Bank, Ltd. The contract has been let to Messrs. Trollope & Colls, Ltd., 5, Coleman-street, E.C.2. The architects are Messrs. Marcus E. & O. H. Collins, 115, Old Broad-street, E.C.2.

Park-lane. — REBUILDING. — In connection with the rebuilding of Dorchester House, Park-lane, we are informed that Sir E. Owen Williams, K.B.E., 5, St. George-street, S.W.1, is "engineer and designer of the building to be erected." Sir Robert McAlpine & Sons are the builders.

Peckham.—SHOPS.—Alterations and additions are being carried out at 60 and 62, Peckham Park-road, by Mr. J. Neal, builder, Nunhead-lane, S.E.15. The constructional steelwork is being supplied by Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W.1.

Piccadilly.—REBUILDING.—We understand that Mr. George Skipper, F.R.I.B.A., acting on behalf of the ground landlords, has designed the elevation for new buildings to be erected in Sackville-street and Piccadilly, W.1. The block shortly to be built at the Piccadilly corner will be part of Mr. Skipper's design, and will, it is stated, be carried out by Mr. Andrew Mather, as architect to the building lessee.

Plumstead.—ADDITIONS.—Mr. S. W. Ackroyd, architect, Commonwealth-buildings, Albion-road, Woolwich, has prepared (on behalf of the Royal Arsenal Co-operative Society, Ltd.), plans for additional stores in McLeod-road, Plumstead.

Shepherd's Bush.—ADDITIONS.—Mr. F. G. Newman, architect to Barclay, Perkins & Co., Ltd., has prepared plans for additional lavatory accommodation at the "Stewart Arms" public-house, Norland-road, Shepherd's Bush, W.11.

Springfield.—FLATS.—Messrs. J. Lovell & Son, of 6, Bathurst-street, W.2., are to erect 36 flats at the junction of Twilley-street and Esparto-street.

Tottenham.—FACTORY.—Messrs. Doublex, Ltd., 226, Bishopsgate, E.C.2, are to erect a factory. They have acquired a site on the Prestwich estate, Willoughby-lane.

Wandsworth.—BUILDING.—Messrs. Trollope & Colls, Ltd., are erecting premises at 74-84, Wandsworth-road, S.W.

Westminster.—ADDITIONS.—The Infants' Hospital in Vincent-square, S.W., is to be enlarged. The scheme is estimated to cost £50,000.

Wood Green.—OFFICES.—Tottenham and District Gas Co. have purchased the Home and Colonial Training College and grounds at Wood Green for about £35,000. The Gas Co. intend to use the buildings as their chief offices.

Woolwich. — EXTENSIONS.— The Borough Engineer of the Woolwich Borough Council has been authorised to proceed with the erection of a children's department at the Eltham High-street library in accordance with the plans submitted. The cost is estimated at £1,900.

Woolwich.—LIBRARY.—Mr. J. Sutcliffe, Borough Engineer to the Woolwich Council, has prepared plans for the erection of a library at the junction of Southwood and Footscray-roads. The cost when complete will be about £13,000.

York-road.—HOME.—A nurses' home is to be erected at the General Lying-in Hospital, to be connected to the main building by special passages. The architect for the scheme is Mr. E. T. Powell, F.R.I.B.A., 13, Queen Anne's-gate, S.W.1. Messrs. Thomas Rider & Sons, of 181, Union-road, Borough, S.E.1, have secured the foundation contract. Messrs. Greenham, Ltd., Isleworth, have the demolition contract.

CONTRACTS PLACED

Leicester.—HOUSES.—A further 250 brick houses are to be built on the Braunstone estate by the Leicester City Council, at a cost of £109,072. Three of the contracts are to be given to Leicester firms—W. & H. Foulds, S. A. Porter, and J. Freer, and Bodell & Sons, Ltd., of Hucknall.

Leicester.—OFFICES.—The City of Leicester Education Committee have accepted the tender of Messrs. Bowles & Son, of Gladstone-street, Leicester, for the sum of £14,760, for the erection of new education offices. Mr. F. P. Armitage is the director of education.

Northallerton.—POST OFFICE.—A £10,000 tender, by D. Oakley, Northallerton, for the erection of a new post office at Northallerton, has been accepted. The site is in the centre of the main thoroughfare of the town.

NEW CINEMAS

Blackburn.—Messrs. Gray & Evans, 51, North John-street, Liverpool, are the architects preparing plans for the erection of a 1,500-capacity new super-cinema in Audley-lane, Blackburn, for Mr. A. G. Wilson, 230, Broad-lane, West Kirby, Liverpool, announced in our issue for February 8.

Bolton.—A new cinema is proposed to be erected on a site bounded by Bark-street, Knowsley-street and Bridge-street, the premises of Messrs. W. & E. Holt, Ltd. The new building erected will cost £70,000. The architect is Mr. Stanley Bradley, L.R.I.B.A., 8, Acresfield, Bolton.

Edinburgh.—It is proposed to erect a cinema in the Piershill district of Edinburgh, at an estimated cost, for erection and equipment, of £20,000. A company, with which Mr. Archibald Craig, of 12, Queen-street, Edinburgh, is connected, has been formed for the purpose, and plans have been passed by the Dean of Guild Court. The frontage of the building will be to Piershill-terrace. The auditorium will have a seating accommodation for 1,065, and the balcony for 503 people. The architect is Mr. T. Bowhill Gibson, 30, Rutland-square, Edinburgh.

Leeds.—A contract for the erection of the new "Plaza" cinema and shops fronting Wellington-road, Wortley, for the West Leeds Entertainments, Ltd., announced in our issue for April 19, has been awarded to Mr. J. Walker, of 17, Wesley-road, Armley. The architect is Mr. J. Brodie, A.R.I.B.A., 28, Church-lane, Pudsey, Yorks.

Margate.—Messrs. Margate Super Cinema, Ltd., as announced in our issue for October 11, are to make additions to the Hippodrome at Cecil-square. The registered office of the Company is at 147, Fenchurch-street, E.C.3. The scheme has been planned by Mr. Percy Levett, of 1, Arthur-road, Margate. Messrs. Rice & Son, Ltd., of Prudential-chambers, Margate, are the contractors.

Ramsbottom.—The Ramsbottom Industrial and Provident Society are proposing the reconstruction of the Co-operative Hall as a cinema. A new operating box and new cinema machinery will be installed. The architect is Mr. Albert Winstanley, 15, Ducie-street, Manchester.

Southern Counties Federation.

An instructive lecture on "Concrete" was given in Oxford on November 15, under the auspices of the Southern Counties Federation in conjunction with its Oxford Association. Mr. T. E. Knowles, Chairman of the Oxford Association, presided. The lecturer, Dr. W. H. Glanville, of the Building Research Station, limited his remarks to an examination of certain kinds of failure in concrete and reinforced concrete. Failures, he said, could be classified under three headings: (a) materials, (b) the mode of preparation, (c) the subsequent treatment. The effect of the mixing water content on the properties of concrete was briefly examined, and examples of trouble arising from the use of excess mixing water were given. The use of unsuitable aggregates was also dealt with. The lecturer went on to troubles arising through bad construction joints, and gave illustrations of the manner in which decay sets in. Moisture movements and frost action were discussed in brief. Speaking on the attack on concrete by sulphate waters, the lecturer dealt with the question of the part played by the free lime in the cement and the use of pozzolanas as a remedy. The effect of sea water on reinforced concrete structures was also examined, with particular reference to typical failures that have occurred in England. Mention was made of the research work at the building research station on the action of sea water on reinforced concrete. A discussion followed the lecture during which numerous questions were asked and answered.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.)

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/0½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9*	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 989.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc

DECEMBER 9.

Carlton.—Houses.—100 living-room type houses on Chatsworth-av. site, for U.D.C. J. A. West, A.R.I.B.A., Surveyor, Free Library, Manor-rd. Dep. £2 2s.

Devonport.—Adaptation.—Of large boathouse on Gunwharf, at Devonport, the building of considerable extension thereto, the erection of substantial masonry wall, and other works at or near the Ferry Beach, Devonport, for Cornwall C.C. S. Pool, A.R.I.B.A., County Architect, Truro. Dep. £2 2s.

Dorking.—Fencing.—180 yds. unclimbable iron fencing, for U.D.C. L. J. V. Piper, clerk.

Greenlaw.—Houses.—14, to be occupied by small holders at Humehall, near Greenlaw, for Department of Agriculture for Scotland. Chief Surveyor Department of Agriculture for Scotland, York-buildings, Queen-st., Edinburgh. Dep. £1 1s.

Hazel Grove and Bramhall.—House.—Electricity transformer house at Sandiway, Bramhall, for U.D.C. B. Waterhouse, F.M.S.A., Stand Lodge, Bramhall-lane, Bramhall. Dep. £1 1s.

***Ipswich.**—Schools.—Erection of (1) new Council School at Witnesham, near Ipswich; (2) new Junior Council School at Combs Ford, near Stowmarket, for the East Suffolk Local Education Authority. The County Architect, County Hall, Ipswich. Dep. £2 2s. in each case. Payable to the Treasurer, East Suffolk C.C.

St. Helens.—School.—Erection of the Windlehurst Junior Council school, for the St. Helens Corporation. Biram & Fletcher, FF.R.I.B.A., George-st., St. Helens.

Shipley.—Installation.—Providing and fixing low pressure hot water installation in hut at Shipley Salt Boys' school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Southampton.—Improvements.—Reinforced concrete filter house and terrace wall for erection of 182 dressing boxes, cafe, lavatories, etc., at Western Esplanade baths, for C.B. B.E., 33-35, French-st. Dep. £3 3s.

Spilsby.—Cottages.—Eight cottages in St. Michael's-lane, Wainfleet St. Mary, for R.D.C. A. W. Johnson, S.

Todmorden.—Painting, etc.—10 rooms at Poor Law Institution, Stansfield View, and one room at Children's Home, Mankinsoles, for B.G. Master, Poor Law Institution.

DECEMBER 10.

***Barnet.**—Operating Department.—Erection of, at the Wellhouse-lane, Barnet, Herts, for the Guardians of the Barnet Union. A. Saxon Snell & Phillips, FF.R.I.B.A., 9, Bentinck-st., Manchester-square, W.1. Dep. £5.

Dewsbury.—Covering.—Floors of rooms at Staincliffe Infirmary with Fulcherite composition, for B.G. E. T. Tunnicliffe, clerk, Wellington-st.

Essex.—Enlargement.—Of the Wickford Council School, for the Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s., to F. H. Owers, County Accountant, Duke-st., Chelmsford.

Glasgow.—School.—Temporary school at Baird-st., Govan, and additions to King's-pk. temporary school, King's-pk., for E.C. R. Burns, Executive Officer.

Gloucester.—Alterations.—To branch at Calton-rd., for Gloucester Co-operative and Industrial Society, Ltd. W. Leah, architect, 10, Clarence-st.

Goole.—Conversion.—Pail closets into water closets, for U.D.C. J. H. Castle, Town Surveyor.

Manchester. — Laundry. — Central establishment laundry adjoining Moss Side Public Baths, for T.C. City Architect. Dep. £1 1s.

Newbridge.—Centre.—Manual and domestic arts centre, and minor alterations, at Newbridge senior mixed Council school, for Monmouthshire E.C. J. Bain, F.R.I.B.A., County Hall, Newport. Dep. £2 2s.

Newport, I. of W.—Painting.—External, at sewerage works, for T.C. B.S.

Sunderland.—Houses.—26 three-roomed houses at Plantation-rd., Ford estate, and 68 four-roomed houses at Ford estate, for C.B. B.E. Dep. £2 2s.

Tamworth.—Houses.—90 non-parlour type, and for construction of 750 yds. of roadway, at the Leys, for T.C. A. Oswald Marshall, B.E. and S.

DECEMBER 11.

Coventry.—Alterations and Erection of Garage.—At the Sorting Office, Coventry, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Glasgow.—School.—At Balornock, Springburn, for E.C. R. Burns, Executive Officer.

Hull.—Fencing.—Wood fencing at Endyke-lane school site, for E.C. R. C. Moore, Director of Education.

Kingston-upon-Hull.—Bandstand.—Also refreshment pavilion at West-pk., for T.C. T. Thomas, City E.

Kingston-upon-Hull.—Concreting.—Deepening and concreting bottom of model yacht pond in East Park, for T.C. T. Thomas, City E.

Kingston-upon-Hull.—Fencing.—Wood fencing, new cemetery, East Hull, for T.C. T. Thomas, City E.

***London.**—Extensions.—Certain extensions to the boiler house at the Poplar Institution, 86, High-street, E.14, for the Poplar Board of Guardians. Harley Heckford, Borough Surveyor, Council Offices, Poplar, E.14. Dep. £1 1s.

Manchester.—Extension.—Public washhouse and females' wash baths, adjoining Gorton baths, for T.C. City Architect. Dep. £1 1s.

Rochdale.—Painting.—Internal in museums Nos. 2 and 3 at Art Gallery and Museum, and at Castleton Branch Library, for C.B. B.S.

DECEMBER 12.

***Acton, W.3.**—Foundations.—Construction of, a new bowls pavilion, convenience and laying of drains to existing sewer in the Park, for the Gunnersbury Park Joint Committee. Major W. G. Cross, Engineer to the Committee, Municipal Offices, Acton, W.3.

Bumpstead.—Cottages.—Pair of cottages in each of following parishes:—Ashen, Birdbrook, Steeple Bumpstead, Helions Bumpstead, Sturmer and Ovington, for R.D.C. H. Brown Thake, architect, 10, High-st., Haverhill.

Epping.—Remodelling.—Of the Epping Church of England School, for the Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s., to F. H. Owers, County Accountant, Duke-st., Chelmsford.

Glasgow.—School.—Temporary school at Cloberhill, Knightswood, for E.C. R. Burns, Executive Officer.

Gunnersbury.—Foundations.—To new bowls pavilion, convenience, and laying of drains to existing sewer in Park, for Gunnersbury Park Joint Committee. W. G. Cross, Engineer to Committee, Municipal Offices, Acton, W.3.

Lancashire.—School.—Boys' Grammar school at Leigh, for E.C. Stephen Wilkinson, F.R.I.B.A., 16, Ribbersdale-place, Preston. Dep. £2.

London.—Building.—Lavatory accommodation at Ealing Broadway station, for G.W.R. F. R. E. Davis, secretary, Paddington Station, W.2.

Nelson.—Draining.—Also levelling playing fields and formation of tennis courts at secondary school, for Lancashire E.C. Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston. Dep. £2.

St. Germans.—Houses.—8 working-class, at Hatt, Bottsfleming, for R.D.C. J. Percival Heath, clerk, Council-chams., East Cornwall House, Torpoint. Dep. £1 1s.

Stockport.—Painting.—Various bridges, railings, handrails, urinals, etc., in borough, for T.C. H. Hamer, B.S.

Uckfield.—Houses.—12 non-parlour type, for R.D.C. Tom Burdett, S., Starfield, Beacon-rd., Crowborough. Dep. £1.

Wallasey.—Yacht Club, Bandstand, Conveniences and Kiosks.—Erection of, on the Promenade Pier, New Brighton, for the Wallasey Corporation. Borough Engineer and Surveyor, Town Hall, Wallasey. Dep. £1 1s.

DECEMBER 13.

Birkenhead.—Tenement Dwellings.—Erection of 15, on land fronting Abbey-st., Knox-st. and St. Mary's-gate, Birkenhead, for the Birkenhead Corporation. R. W. Johnston, Borough Engineer and Surveyor, Town Hall, Birkenhead. Dep. £2 2s.

Grimsby.—Cottages.—12 non-parlour; Immingham; 4 non-parlour, Stallingborough; and 4 non-parlour, Aylesby, for R.D.C. A. Hobson, surveyor, Deansgate. Dep. £2 2s.

Killarney.—Houses.—16 five-roomed houses, for U.D.C. John Gallivan, E. Dep. £10.

London.—Doors, etc.—Cast bronze ornamental doors, grilles, fanlights, etc., for important building in Rangoon, for India Store Department, Belvedere-rd., Lambeth, S.E.1. Director-General.

Near Newry.—Erection.—Two Customs boundary posts at Carrickarnon Bridge, near Newry, and on Greenore-Newry-rd., for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-sq. West, Belfast.

Southampton.—Schools.—On Deanery site, Marshlane, to accommodate 1,280 scholars, for C.B. B.E., 33-35, French-st. Dep. £3 3s.

DECEMBER 14.

Australia. — Carving. — Carving sculpture in granite at Melbourne, Victoria, for National War Memorial of Victoria. Agent-General for Victoria, Australia, Victoria House, Melbourne-place, Strand, W.C.2.

Dublin. — Installation. — Electrical, including lighting and power at City Abattoir, North Circular-rd., for C.B. City Engineer, 28, Castle-st. Dep. £3 3s.

Kirkcaldy.—Houses.—20 houses at Coaltown of Balgonie, for District Committee. W. Williamson, architect, Kirkcaldy. Dep. £1 1s.

DECEMBER 16.

***Alcombe.**—35 Cottages.—Erection of, for the Minehead U.D.C. A. Douglas Barron, architect, Surveyor's Office, The Parade, Minehead. Dep. £2 2s.

Beverley.—Alterations.—Also additions to headquarters offices, at Sessions House, East Riding of Yorkshire. County Architect, County Hall, Beverley.

Cardiff.—Houses.—200, on Ely site, for T.C. City E. Dep. £2 2s.

Derby.—Masonry Work.—Erection of masonry parapet and abutment piers to Exeter Bridge, Derwent-street, Derby, for the Derby Corporation. C. H. Aslin, A.R.I.B.A., Borough Architect, Municipal Offices, Babington-lane, Derby. Dep. £1 1s.

Eton. — Redecoration. — External, at housing schemes:—Gerrards Cross, Burnham Denham, Eton Wick, Farnham Common, Iver, Langley and Stoke Poges, for R.D.C. A. Gladwell, E. and S.

Hasilingden.—Houses.—24 non-parlour type, in stone, on Longshoot site, for T.C. R. Taylor, B.S. Dep. £2 2s.

Haverhill.—Houses.—16 non-parlour, in Recreation-rd., for U.D.C. J. H. Clarke, S. Dep. £2 2s.

Manchester.—Painting.—Basement of Crumpsall branch library, for T.C. City Architect. Dep. 10s. 6d.

Truro.—Garage.—Residence and garage at Carbis Bay. A. J. Cornelius. F.R.I.B.A., architect, Truro.

DECEMBER 17

Charminster.—Houses.—21½ pairs, facing Luckham-rd., adjoining existing housing scheme, for Corporation. F. P. Dolamore, B.E.

Dundalk.—Building.—Laying of 8-in., 6-in., 5-in. and 4-in. dia. water mains in streets, and also building underground and overground sanitary conveniences, for U.D.C. M. Sellars, Town Surveyor. Dep. £2.

Hoylake and West Kirby.—Buildings.—Fire station and fireman's house, Hoylake, for U.D.C. E. and S. Dep. £2 2s.

Hull.—Branch Post Office.—Erection of, in Queen-st., Hull, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. One Guinea.

Larne.—Plumbing.—In connection with District Hospital, for B.G. J. A. Hanna, C.E., Prudential-buildings, 3, Wellington-place, Belfast.

London.—Painting.—Painting and renovating staircases at City of Westminster Institution, 367, Fulham-rd., S.W.10, for Westminster B.G. W. J. Lickley, clerk, Guardians' Offices, Princes-row, Buckingham Palace-rd., S.W.1.

London.—Lighting.—Rewiring for electric lighting at (1) Patent Office, (2) Public Record Office, W.C., for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

Southport.—Demolition.—Dismantling and removal of material, comprising "Scarisbrick engine house," and certain other works on the same site, situated on main Southport-Ormskirk-rd., near Scarisbrick, for Southport and District Water Board. C. Burton Ede, engineer and manager, 14, Portland-st., Southport. Dep. £1.

Stretford.—Extension.—Addition of practical training rooms at Victoria-park school, and addition of one room to Gorse-hill school, for E.C. P. Howard, A.R.I.B.A., 88, Mosley-st., Manchester. Dep. £2 2s.

Willesden.—Baths, Additions, etc.—Providing additional dressing accommodation at the King Edward Swimming Baths, Harlesden, N.W.10, also construction of buildings and drainage, together with structural alterations and additional dressing accommodation at Gladstone Park Swimming Bath, Dollis Hill, for the Willesden District Council. F. Wilkinson, Engineer to the Council, Town Hall, Dyne-rd., Kilburn, N.W.6.

DECEMBER 18.

Cardiff.—Painting.—Clarence-bridge, for T.C. City E.

Folkestone.—Telephone Exchange.—Erection of, at Lyminge, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Kensington.—Demolition and Erection of Flats.—Demolition of existing buildings and for the erection of 24 flats in Hesketh-pl., Notting Hill, for the Royal Borough Council of Kensington. B.E. and S., Town Hall, Kensington, W.8. Dep. £2 2s.

Methil.—Additions.—To St. Agatha's R.C. school, Methill, for Fife E.C. G. Sandilands, architect and master of works, Education Offices. Dep. £1 1s.

Rochester.—Pavilion.—Erection on the Playing Field in Willis-av., Rochester, for the Governors of Sir Joseph Williamscn's Mathematical School, Rochester. George Bell, Clerk to the Governors, 115, High-st., Rochester.

Smethwick.—Houses.—38 non-parlour, Brisbane-rd., for C.B. R. Fletcher, B.E. and S. Dep. £2 2s.

Wadsley.—Works.—Plasterer's work and wiring for electric light at Mental Hospital, near Sheffield, for West Riding Mental Hospitals Board. W. E. H. Burton, architect and engineer, West Riding Mental Hospitals Board, Wakefield.

DECEMBER 19.

Askham Bryan.—Improvements.—(1) Westfield Farm, repairs, alterations and additions to house and farm buildings; (2) East Barrow Farm, repairs, alterations and additions to house and farm buildings, new stables, piggeries, and two cottages; (3) poultry section, detached cottage and service block, for Yorkshire Council for Agricultural Education. Pick, Everard, Keay & Gimson, architects, 6, Millstone-lane, Leicester. Dep. £2 2s.

Durham.—School.—Erection and completion of the new Secondary school upon a site at Low Spen, near Hookergate, for the Durham C.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Durham.—Schools.—Erection of, at Castle Eden Colliery, Bullion-lane, Chester-le-Street, and Pittington, for the Durham C.C. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

Manchester.—Fencing.—Iron post and rail fencing at Casson-st. recreation ground, Gorton, for T.C. City E. Dep. £1 1s.

Walton-on-Thames.—Garage, etc.—Erection of, at the Post Office Engineers' Stores, Walton-on-Thames, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 20.

Downham Market.—Post Office.—Erection of, at Downham Market, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

***Mount Pleasant, E.C.**—Internal Painting.—At the new Letter Office, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 21.

Halifax.—School.—Erection of new Girls' High school, trades in connection therewith, at Craven Lodge, for the Halifax County Borough Council. A. C. Tipple, Borough Engineer, Crossley Street, Halifax. Dep. £2 2s. (cheques payable to the Corporation).

***Llandrindod Wells.**—Alterations and additions to the above Intermediate school, for the Radnorshire E.E. J. Mostyn, M.C., M.A., Director of Education, County Education Offices.

DECEMBER 23.

Hull.—School.—Elementary school in Flintongrove, for 1,280 scholars, for E.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £2 2s.

Long Eaton.—Houses.—11, Hawthorne and Myrtle-av., and 52, Wellington-st. and Duckholm-rd., for U.D.C. H. Raven, architect, Town Hall. Dep. £5 5s. each.

DECEMBER 30.

Galway.—Addition.—Also alterations to hotel, for Gt. Southern Railways. Chief Engineer, Westland-row Station, Dublin, C.S. Dep. £1 1s.

Stevenage.—Houses.—68 in Whites Mead-rd., for U.D.C. Reg. A. Gandy, E. and S. Dep. £2 2s.

DECEMBER 31.

***Regent's Park, N.W.**—Construction.—Of a Children's Boating Pond, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Rugby.—Painting.—Certain work at Harborough Magna Infectious Diseases Hospital, for Rugby Joint Hospital Board. M. E. T. Wratislaw, clerk, 16, Church-st.

***Southall.**—Telephone Exchange.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep., £1 1s.

***Southampton.** — Extension. — Hampton Park Telephone Exchange, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

***Sutton.**—Extension.—Of Sorting Office, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

***Teddington.**—Compressed Air Tunnel Building.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JANUARY 1.

Egypt.—Ironwork.—Wrought-iron doors, grilles, balustrades, etc., for Board's new headquarters at Alexandria, for International Quarantine Board of Egypt. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5719.)

JANUARY 4.

***Near Newcastle, Staffs.**—Nurses' Home.—Erection of, for the Stoke and Wolstanton Union. The Clerk, Union Offices, Stoke-upon-Trent. Dep. £3

JANUARY 7.

Blayney.—Extensions.—Alterations and repairs, St. Mary's Church, Muckno, Castle Blayney, for Rev. A. T. Canon Maguire, P.P., and Parochial Committee. J. F. McGahon & Son, architects, Dundalk. Dep. £5 5s.

JANUARY 22.

Brentford.—Building.—Steam disinfector at West Middlesex Hospital, Isleworth, for B.G. F. E. Harmsworth, clerk, Toolands House, 34, Twickenham-rd., Isleworth.

NO DATE.

Barnsley.—Extensions.—To Thos. Taylor & Sons' factory, Peel-st. P. A. Hinchliffe, F.R.I.B.A., Midland Bank-chams., 5, Market-hill.

Dundee.—Additions.—In connection with additions and alterations at Lilybank day nursery, for Corporation. G. Baxter, City E., 91, Commercial-st.

Dundee.—Plaster Work.—At slaughter-houses, for T.C. G. Baxter, City E., 91, Commercial-st.

Rotherham.—Painting.—Twelve houses at Catcliffe. —, Berry, 2, Moorgate-st.

MATERIALS, etc.

DECEMBER 9.

Derbyshire.—Road Materials.—For C.C. J. W. Horton, C.S.

Huddersfield.—Water-closet Fittings, etc.—For C.B. T.C.

Lancaster.—Building Materials.—For Corporation. F. Hill, B.S.

Whitstable.—Pipes.—Cast-iron pipes and specials, for U.D.C. G. Dunkin, Water Engineer.

DECEMBER 10.

Staffordshire.—Pipes.—3,550 tons of cast-iron pipes, 16 to 24 in. diameter, for Potteries Water Board. R. C. Frain, Engineer and General Manager, Albion-st., Hanley, Stoke-on-Trent. Dep. £5.

DECEMBER 11.

Belfast.—Builders' Materials, etc.—For City and District Water Commissioners. W. I. Quinn, secretary, Water Office.

Manchester.—Pipes.—440 lin. yds. of 24-in. socket and spigot pipes and specials, cast-iron or steel, for Corporation Waterworks. Engineer, Waterworks Offices.

DECEMBER 12.

Southampton.—Pipes.—10,200 lin. yds. of 15 in. C.I. socket and spigot pipes and about 30 tons of special castings, for C.B. R. R. H. Meggeson, T.C.

DECEMBER 13.

Breconshire.—Surface Dressing Work.—For C.C. J. M. Richards, C.S. Dep. £2 2s.

Breconshire.—Road Materials.—For C.C. J. M. Richards, C.S.

DECEMBER 16.

Berkshire.—Road Materials.—For C.C. Lt.-Col. J. F. Hawkins, C.S.

DECEMBER 18.

Nottingham.—Building Materials.—For Gas Department. Engineer and General Manager. Gas Offices, 6, George-st.

DECEMBER 21.

East Suffolk.—Road Materials.—For C.C. W. Jervis C.S.

Norfolk.—Sand, etc.—For C.C. S. H. Warren, C.S.

NO DATE.

Plymouth.—Builders' Materials.—For B.G. W. H. Davy, clerk, Poor Law Offices, Greenbank-rd.

ENGINEERING, IRON AND STEEL

DECEMBER 9.

Broadstairs and St. Peter's.—Drainage.—2,200 yds. of stoneware and concrete pipe sewers of 9-in., 12-in., 15-in., 24-in., and 33-in. dia., together with all manholes, ventilating shafts and other appurtenant works; also construction of two screen chambers, the extension of existing 27-in. cast-iron outfall sewer, and construction of a new 30-in. cast-iron outfall sewer, for U.D.C. G. M. C. Taylor, E., Caxton House, Westminster, S.W.1. Dep. £5.

Egypt.—Bridge.—Swing bridge over Bahr-el-Baqar drain, Charkieh Province, for Main Roads and Bridges Department, Cairo. Department of Overseas Trade, 35, Old Queen-st., S.W.1 (Ref. A.X. 8705.)

DECEMBER 10.

Wolverhampton.—Sewage.—Detritus tanks, sedimentation tanks, humus tanks, storm-water tanks, sludge digestion tanks, sludge drying beds effluent conduit and canal-crossing, together with manholes pipe lines and other works, for C.B. Dodd & Watson, engineers, Wellington House, Bennett's hill, Birmingham. Dep. £2.

DECEMBER 11.

Braintree.—Sewage.—Sewage disposal works, erection pumping station, provision and laying of connecting sewer and rising main, etc., at Kelvedon and Feering, for R.D.C. A. Hills, clerk. Dep. £5.

Helston.—Sewerage.—6 miles of stoneware and cast-iron pipe sewers, with manholes and ventilators, together with sewage purification works, consisting of settlement tanks, filters and works incidental thereto, for T.C. and U.D.C. Major Chadwick, E., Bletchley, Bucks. Dep. £5 5s.

DECEMBER 12.

Nottingham.—Drainage.—3,585 yds. of large dia. brick and concrete sewers, including about 1¼ miles of 6 ft. dia. brick sewer in tunnel, together with junction chambers, manholes and other appurtenant works, for T.C. T. Wallis Gordon, City E. and S. Dep. £5.

DECEMBER 14.

Coleraine.—Extension.—Of wharf, for Harbour Commissioners. Secretary to Coleraine Harbour Commissioners, Town Hall, Coleraine. Dep. £1 1s.

Denbigh.—Additions.—To Llyn Bran water supply, for North Wales Counties Mental Hospital. Edw. Wilson Dixon, consulting engineer, 3, East-parade, Leeds. Dep. £1.

Michael.—Sewerage.—Pipe sewers, with all manholes, etc., throughout district, including purification works consisting of sedimentation tanks, percolating filters, humus tanks, etc., for Village District. R. H. Kinvig, Chairman of Commissioners, The Village, Michael.

Warwickshire.—Line.—Widening main line between Olton station and Bentley Heath level crossing, for G.W.R. Engineer at Paddington Station. Dep. £2 2s.

DECEMBER 16.

Reigate.—Drainage.—7,700 yds. stoneware sewers of 7-in. and 9-in. dia., together with manholes, ventilating shafts, flushing tanks and other appurtenant works; also sewage pumping station, comprising pump chamber and suction tank, all below ground, together with pumping machinery and pipe connections, etc., for R.D.C. G. Bertram Kershaw, engineer, 9, Victoria-st., Westminster, S.W.1. Dep. £5.

DECEMBER 19.

Johannesburg.—Steelwork.—Supply and delivery only of constructional steelwork, etc., for engine shed and repair shop, Salt River, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8742.)

DECEMBER 21.

Chippenham.—Improvements.—Also additions to water supply, for R.D.C. Parker Pearson & Ross Wooper, engineers, Dallas-chams., Chippenham. Dep. £5.

DECEMBER 23.

Glasgow.—Bridges.—Two steel plate-web girder bridges, for T.C. D. A. Donald, E., 271, Alexandra-parade, Glasgow, E.1. Dep. £3 3s.

West Riding.—Widening.—Of bridge carrying Westwood new road over lines of L. and N.E. Rly. Co., approx. 800 yds. north of Westwood Station, Wortley, for C.C. West Riding Surveyor. Dep. £1.

West Riding.—Bridge.—Bridge to carry Todmorden, Halifax and Burnley main road over Rochdale Canal, Mytholmroyd, for C.C. West Riding Surveyor. Dep. £1.

JANUARY 2.

Johannesburg.—Bridgework.—Structural bridgework, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8791.)

JANUARY 7.

Romford.—Sewerage.—Main outfall sewer about 4,000 yds. in length, including 600 yds. of 48-in. cast iron pipes and 3,400 yds. of 48-in. concrete tubes, together with 12 settling tanks, 12 bacteria beds, humus tanks, for U.D.C. Willcox & Raikes, engineers, 33, Great Charles-st., Birmingham. Dep. £5 5s.

JANUARY 8.

Blackpool.—Bridge.—Steel plate girder bridge in three spans on brick and concrete abutments, to be constructed over L.M. and S.R. at Bispham Station, for C.B. Francis Wood, B.E. and S. Dep. £1.

JANUARY 9.

Johannesburg.—Steelwork.—Structural steelwork, etc., for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8834.)

FEBRUARY 1.

Cairo.—Bridge.—Over River Nile at Kasr-el-Nil, for Main Roads and Bridges Department. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8704.)

MARCH 4.

Wellington, N.Z.—Structural Steel.—Structural steel, galvanised screens and ladder rungs, for Public Works Department, New Zealand. Department of Overseas Trade, 35, Old Queen-st., London, S.W.1. (Ref. A.X. 8785.)

ROAD, SEWERAGE, AND WATER WORKS

DECEMBER 9.

Bognor Regis.—Roads.—Reinforced concrete carriageway, part of Westloats-lane, for U.D.C. J. Draper, S.

Bognor Regis.—Resurfacing.—5,600 sq. yds. tarred paved footpaths, and about 7,700 sq. yds. colas grouted limestone carriageways, for U.D.C. J. Draper, S.

East Barnet Valley.—Reconstruction.—At Pricklers Hill, on Great North-rd., from County Boundary to junction of Station-rd., for U.D.C. C. M. Barnes, E. and S. Dep. £10.

Kent.—Road.—Highway, 80 ft. wide, with 30 ft. carriageway, from Herne Bay-Canterbury-rd. at Eddington to junction with Canterbury-Margate road at Frost-lane, St. Nicholas-at-Wade, for C.C. C.S., St. Peter-st., Maidstone.

Poole.—Making-up.—Glenair-av. and Glenair-rd. E. J. Goodacre, B.E.

Tendring.—Extension.—1,500 yds. of 9-in. sewers, with manholes, etc., in Kirby-le-Soken, for R.D.C. F. G. Vincent-Brown, S. Dep. £2 2s.

Tendring.—Sewerage.—Laying of 6-in., 9-in. and 12-in. sewers, with manholes and ventilators, at Holland-on-Sea, for R.D.C. F. G. Vincent-Brown, S.

DECEMBER 10.

Bushey.—Resurfacing.—With tarmacadam, about 14,859 yds. super. of Hillside-rd., Roseberry-rd., Merry Hill-mount, Victoria-rd., Belmont-rd., Grantham-rd. and Otterspool-lane, including other contingent works, for U.D.C. E. B. Ryder, E. and S.

Gosforth.—Improvements.—At junction of Coxlodge-rd. and Fawdon-rd., consisting of tarmacadam carriageways, flagged footways, etc., for U.D.C. G. Nelson.

Hillsborough.—Improvements.—Of sewerage system of town of Saintfield, for R.D.C. A. Thompson, C.E., architect.

Kidderminster.—Making-up.—Part of Suttonpark-rd; part of Greatfield-rd., for T.C. J. Hawcroft, B.E. and S. Dep. £2 2s.

Richmond (Surrey).—Making-up.—Of Atwood-av. and Marksbury-av., for T.C. J. W. Trodd, B.E. Dep. £1 1s.

Staffordshire.—Pipe Laying.—6 miles of cast-iron pipes 16 to 24 in. diameter, for Potteries Water Board. R. C. Frain, Engineer and General Manager, Albion-st., Hanley, Stoke-on-Trent. Dep. £5.

DECEMBER 11.

Edlington.—Asphalting.—Playgrounds at Edlington Council school, for West Riding of Yorkshire C.C. A. J. Dempster, divisional clerk, 20, Christ Church-rd., Doncaster.

Hemsworth.—Sewer.—Laying and jointing of approximately 275 yds. of 24-in. cast-iron sewer, together with necessary manholes, etc., in South Elmsall, for R.D.C. W. T. Lynam, E. Dep. £1 1s.

Kensington.—Wood Paving Works.—Laying creosoted deal blocks (Firmosec system) on a new concrete foundation in Pembridge Villas from Pembridge-pl. to Chepstow-pl., for the Royal Borough Council of Kensington. B.E., Town Hall, Kensington, W.8.

St. Germans.—Construction.—Of 387 yds. of 15-in., 217 yds. of 12-in., and 1,939 yds. of 9-in. salt-glazed ware pipe sewers, together with 33 manholes, one storm outflow, and outfall works, at St. Stephens-by-Saltash, for R.D.C. J. Heath, clerk, Council-chams., Torpoint.

DECEMBER 12.

Carlisle.—Road.—Roadway, 60 ft. wide and approx. 530 yds. in length, either in tarmacadam or alternatively in reinforced concrete, on Botcherby housing estate, for T.C. P. Dalton, A.R.I.B.A., City E. and S., 18, Fisher-st. Dep. £1 1s.

Edinburgh.—Pipes.—4,200 ft. of 9-in. and 3,300 ft. of 12-in. dia. spigot and socket steel pipes, lined inside with bitumen, or, alternatively 135 tons of 9-in. and 165 tons of 12-in. dia. dry sand cast-iron pipes, for T.C. J. & A. Leslie & Reid, water engineers, 29, Waterloo-place.

Hull.—Road.—193 lin. yds. new concrete road off Gillshill-rd. A. I. Windross, F.A.I., and Partners, Ltd., Prince's Dock-side (near Monument Bridge).

Leyton.—Paving.—Making-up, paving, kerbing, channelling and lighting of Wiseman and other roads, for T.C. A. P. Howell, B.E. and S. Dep. £10.

Southampton.—Main.—Laying and jointing of about 10,200 yds. of 15 in. C.I. socket and spigot water main, from Yew Hill reservoir, Compton, to junction of Stoneham-rd. with Southampton-Winchester-rd., North Stoneham, for C.B. Waterworks Offices, 21, Shirley-rd. Dep. £3 3s.

DECEMBER 14.

Hale.—Improvements.—Also widening of Wickerlane and Hawley-lane, for U.D.C. C. P. Higginbotham, S. Dep. £1 1s.

Inverness.—Road.—From North Ballachulish to Fort William, a length of approx. 12 miles, for C.C. Major Robert Bruce, Supervising Engineer, 104, Academy-st., Inverness. Dep. £3 3s.

Llandudno.—Streets.—Six private streets, for U.D.C. W. T. Ward, E. and S.

Loughton.—Reconstruction.—Sewering and partially reconstructing Alderton-hill, for U.D.C. H White, F.R.I.B.A., S. Dep. £1 1s.

West Riding.—Works.—For Wadsley, Langsett, and Sheffield: improvement and widening north of Oughtibridge, Wortley; Beighton-lane and Worksop and Attercliffe main roads: improvement and widening at junction at Swallownest, Rotherham, for C.C. West Riding Surveyor, Wakefield. Dep. £1.

West Riding.—(1) Mexborough: Doncaster and Tinsley (Swinton Branch) main road, improvement and widening from Cross Church-st. to the Union Inn, Mexborough; (2) Wortley: Wadsley, Langsett, and Sheffield main road, improvement and widening north of Oughtibridge; (3) Bowland: Marsden, Gisburn, and Long Preston and Skipton and Clitheroe main roads, improvements and widening at junction near Gisburn Church; (4) Tickhill: Balby and Worksop main road, improvement and widening near "Travellers' Rest" public house at Tickhill; (5) Rotherham: Beighton-lane and Worksop and Attercliffe main roads, improvement and widening at junction near Swallownest, for C.C. West Riding Surveyor. Dep. £1.

DECEMBER 16.

Ashborne.—Sewers.—Laying of sewers and construction of concrete road about 150 yds. in length, for U.D.C. D. Powell, E. and S. Dep. £1 1s.

Blean.—Sewer.—433 yds. lin. of 9-in. stoneware pipe sewer, four manholes and other works appertaining thereto, at Mill-lane, for R.D.C. F. A. Ward, S. and E.

Carlisle.—Roads.—Tarmacadam footways and roadways, approx. 970 yds. in length, on the Raffles-Newtown housing estate, for T.C. P. Dalton, A.R.I.B.A., City E. and S., 18, Fisher-st. Dep. £1 1s.

Epping.—Reconstruction.—Houblon's-hill, about 915 yds. run; Stonards-hill, about 1,455 yds. run; and Bower-hill, about 467 yds. run; for U.D.C. S.

Hendon.—Improvements.—To Deansbrook-rd., for U.D.C. A. O. Knight, E. and S.

Mitcham.—Relaying.—Taking up and relaying 750 ft. of 9-in. dia. soil sewer in Fieldgate-lane, for U.D.C. S.

Northwich. — Reconstructing. — Moss-rd. South and making-up of Northway, for U.D.C. F. L. James, S.

Pembrokeshire.—Improvement.—Of road at Kingsbridge, on Canaston-Pembroke road, for C.C. A. H Thomas, A.R.I.B.A., C.S., Haverfordwest. Dep. £5 5s.

DECEMBER 17.

Warsop.—Water Supply.—From Glapwell along Rowthorn-lane to Rowthorn, for U.D.C. Elliott & Westwick, Gilcroft-chams., Church-lane, Mansfield. Dep. £2 2s.

DECEMBER 18.

Belper.—Sewer.—115 yds. of 6-in. pipe sewer near Cross, Crich Parish, for R.D.C. R. C. Cordon, E. and S.

Clacton.—Drainage.—Laying about 2,350 lin. yds. of 36 in. by 24 in. to 27 in by 18 in. concrete tubes, and 1,630 lin. yds. of 18 in., 15 in., 12 in. and 9 in. stoneware pipes, with manholes and other incidental works, for U.D.C. W. Aiston, S. Dep. £5 5s.

DECEMBER 19.

Lichfield.—Sewers.—(1) Sewers in village of Alrewas; (2) sewage-disposal works, ejector chambers, rising main and compressor-house; (3) air compressors, receivers and pneumatic ejectors, for U.D.C. C. E. Mays, E. Dep. £2 2s.

Luton.—Sewer.—Laying 9-in. foul sewer in Blundell-rd., from Trinity-rd. to Alder-crescent, for T.C. J. W. Tomlinson, B.E. Dep. £1 1s.

DECEMBER 21.

Manchester.—Road.—Construction of Princess-rd. extension from Barlow Moor-rd to Stockport-rd., Northenden, for T.C. City E. Dep. £5 5s.

DECEMBER 23.

Gravesend.—Drainage.—Main drainage scheme in part of borough known as "No. 3 Sand Area," including picking up existing house drains and connecting to public sewers, for T.C. F. T. Grant, B.E. and S. Dep. £5.

DECEMBER 31.

Dover. — Widening. — Of Elms Vale-rd. from Church-rd. to Borough boundary, for T.C. Wm. Boulton Smith, B.E., Maison Dieu House, Dover. Dep. £2 2s.

JANUARY 7.

Cairo.—Mains.—Water mains for town of Luxor (Upper Egypt), for Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. A.X. 8812.)

NO DATE.

Isle of Ely.—Road.—Reinforced concrete road between Guyhirn and Wryde, on Wisbech-Peterborough-rd. (A.47), a length of approximately 5 miles, for C.C. R. S. W. Perkins, C.S. Dep. £10.

Auction Sales, Tenders, etc.

DECEMBER 10.

Barnet.—Wheeler & Wright will sell, by order of the Friern Barnet Urban District Council, freehold land, Oakleigh-rd., N.20, shop sites, Oakleigh-rd., N.20, at the Tally-Ho, N.12. Auctioneers, High-rd., Whetstone, N.20.

DECEMBER 11.

***Ascot.**—Ha'l, Pain & Foster (Incorporated with James Harris & Son), will sell, at the R.A.F. Aeroplane Packing Depot, Ascot, quantity of Building and other material. Auctioneers, 48, West-street, Fareham.

SLIDING DOOR GEAR
Phone HOP 4107 — British Made. — 'Phone HOP 4108
MECHANICAL PERFECTION
COBURN SYSTEM
Latest Catalogue on Request.
THE BRITISH TROLLEY TRACK CO., LTD.
Orange Street, S.E.1.
Agents Everywhere.

JANUARY 14.

Dorchester.—Drivers, Jonas & Co., will sell, at the White Hart Hotel, Dorchester, Oxon, Freehold Residential or Business Premises, situate in High-st. and Queen-st., comprising the College premises, with 30 rooms and garden; the Institute with 7 rooms and garden; cottage and yard. Auctioneers, 7, Charles-st., St. James'-sq., S.W.1.

NO DATE.

Barking.—The Lower Thames Land Development and Power Co., Ltd., offer for sale factory sites at Barking, next to the County of London Electric Supply Co., Ltd.'s power station. The property is free from all L.C.C. regulations. Details from 46, New Broad-st., E.C.2.

Public Appointments

DECEMBER 9.

***Epsom.**—Building Assistant required in the Engineer and Surveyor's Department, by the Epsom U.D.C. E. G. Timbrell, Engineer and Surveyor, 33, Church-st., Epsom, endorsed "Building Assistant."

DECEMBER 10.

***London.** — (*a*) Temporary Architectural Assistant; (*b*) Builder's Working Foreman; required by the Merton and Morden U.D.C. G. Jerram, Engineer and Surveyor, Council Offices, Merton, S.W.19.

Winchester.—Instructor in Wood and Metal Work, to take charge of single Centre. John A. Peart, Director of Education, 3, The Square, Winchester. Enclose stamped envelope.

London. — Architectural Draughtsman (temporary) required on the staff of the Miners' Welfare Committee. (*a*) Grade I; (*b*) Grade II; (*c*) Junior. Secretary for Mines, Establishment Branch, Mines Department, Dean Stanley-st., London, S.W.1.

DECEMBER 11.

Birmingham.—Senior Architectural Assistant required on the permanent staff of the Architects' Department, under the Chief Education Officer, by the City of Birmingham E.C. Chief Education Officer, Education Office, Margaret-st., Birmingham, endorsed "Architectural Assistant."

DECEMBER 12.

***Norfolk.**—Quantity Surveyor required in the School Building Department. The Secretary, County Education Office, Stacey-road, Norwich.

DECEMBER 14.

***Preston.**—(1) Architectural Assistant; (2) Temporary Town Planning Assistant. W. Platt, Borough Engineer and Surveyor, Town Hall, Preston.

DECEMBER 16.

Cambridge.—Deputy County Architect required by the Cambridgeshire County Council. Applicants must be Associates or Licentiates of the R.I.B.A. Ashley Tabrum, Clerk, County Hall, Cambridge.

***Cornwall.**—Architectural Assistant in the County Architects' Department required by the Cornwall County Council. Deputy Clerk of the County Council, County Hall, Truro.

***Hull.**—Architectural Assistants: one senior assistant, two general assistants, one junior assistant required by the Hull City Council. City Architect, Guildhall, Hull.

DECEMBER 18.

***Southampton.**—Two Architectural Assistants required in the Borough Engineer's Office, 33-35, French-street, Southampton.

DECEMBER 19.

***Hull.**—Architectural Assistant (Temporary) required by the E.C. R. C. Moore, Director of Education, Education Office, Guildhall, Hull.

DECEMBER 21.

***Tunbridge Wells.**—Engineering Assistant required by the B.S., W. H. Maxwell, Assoc.M.Inst., C.E., Borough Surveyor and Waterworks Engineer, Calverley Mount, Tunbridge Wells.

JANUARY 20.

London.—Principal required at the Central School of Arts and Crafts, Southampton-row, W.C.1, by the L.C.C. Education Officer (T.1), The County Hall, Westminster-bridge, S.E.1 (stamped addressed foolscap envelope necessary).

MARCH 6.

***London.**—Assistant Examiners: (Forthcoming Examination) in the Patent Office (20-25, with extension in certain cases). The Secretary, Civil Service Commission, Burlington-gardens, London, W.1.

NO DATE.

***Birmingham.**—Part-time Teachership in Building Construction on two evenings per week, commencing in January next, at the Birmingham Central Technical College. The Principal, Central Technical College, Suffolk-st., Birmingham.

London.—Lecturer on Brickwork and Building Construction for craftsmen (2nd year) required at the Northern Polytechnic, Holloway, London, N., to commence duties at once. W. M. Macbeth, clerk, on receipt of foolscap envelope.

***Stafford.**—(*a*) Draughtsman; (*b*) two Junior Draughtsmen (temporary), required by the Staffs E.C. The Architect, County Education Offices, Stafford.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E. Borough Architect, B.A.; Architect, A.

Altrincham.—T. Harold Hill, A.R.I.B.A., 19, Kingsway, architect for theatre in Barrington-rd., for Altrincham Garrick Society. Cost, £5,000 to £6,000, and accommodation for 450 persons.

Ashill.—Andrews & Andrews, architects and surveyors, 15, Hammet-st., Taunton, prepared scheme for development estate, comprising 30 bungalows.

Barking Town.—Application be made by U.D.C. to M.H. for sanction to loan of £57,628 for 114 houses on Upney estate.—Council to widen Upney-lane railway bridge.—Sanction been received for £120 for erection Becontree sub-station.—Houses to be built on Eastbury estate.—M.H. consented to appropriation of land on Upney estate as site for Council school.—Plans passed: 10 shops in Hedgemans rd., for L.C.C.; 4 houses and 4 garages in Fanshawe-av.

Barrow.—Plans prepared and tenders being invited for additions War Memorial Convalescent Home, Infield. H. Tutty Fowler, A.R.I.B.A., architect, 6, Cornwallis-st.

Bath.—City Engineer to re-submit proposals for conveniences in centre portion of City.—Application be made to Electricity Commissioners for sanction to £2,000 for sub-stations.

Belfast.—Parochial Hall for parish of St. Jude, Ormean-rd. Plans by Blackwood & Judy, architects, 41, Donegall-place.

Bexhill.—T.C. approved: 5 pairs of semi-detached houses, Haddocks Hill, E. Bunce, for Radcliffe & Bishop; 6 bungalows, The Byeway, G. E. Mathhews.

Billingham.—U.D.C. approved plans for 600 houses by Industrial Housing Association, Ltd., for Imperial Chemical Industries, Ltd.

Birkenhead.—Baths Committee have under consideration scheme for baths.

Blackpool.—Plans for technical college to be erected in Palatine-rd. been considered by E.C., and Director of Education been instructed to forward them to B. of E. for approval.

Blackpool.—The Parochial Council St. Mary's Church (vicar, Rev. T. E. Heywood Briggs), raising funds for parochial hall and Sunday school in Highfield-rd.—Estates and Housing Committee approved plans for warehouse, Gorton-st. and Talbot-rd., for C. Crewe, Ltd.

Blaenau Festiniog.—C.C. propose alterations, Central school. Plans by County Architect, A. M Howard-Jones, L.R.I.B.A.

Bradford.—Wm. Illingworth, architect, prepared plans for alterations bottling stores, Park-rd., for Wm. Whittaker & Co., Ltd. Tenders invited.

Bridlington.—T.C. approved: C. L. Waite, 4 houses and garages, First-av., J. S. Shaw; M. B. Parkin, extension to 17-23, Prospect-st., H. Davis & Co., Ltd.; T. H. Beckett, 6 houses, Hermitage-rd., for A. L. Bacon.

Bristol.—T.C. to build clinic on site with frontages to Narrow Plain and Old Bread-st., also frontage upon new road proposed to be constructed between Stokes Croft and Victoria-st.

Bromley.—T.C. approved 8 houses, Southborough-rd., Easter & Webb, 8 houses, Vale-rd., Miller & Phillips.

Bury.—Tramways Committee propose motor-bus garage, Rochdale-rd. Plans by B.E.

Castleford.—County Council Education architect prepared plans alterations Welbeck-st. Council school, at £1,000. Tenders invited.

Cheadle.—Members, Cheadle Congregational Church, propose extensions school. Estimated cost, £800.—W. B. Edwards, A.R.I.B.A., Victoria-villa, Flint, N.W., preparing plans for Catholic church, for Rev. Father P. L. Pears, St. Chad's, 249, Stockport-rd., Cheadle.

Cheimsford.—B.S., submitted to Housing Committee sketch plans showing lay-out and sites for 124 non-parlour type houses on Boarded Barns estate. Cost £42,156.

Coalville.—Rev. Father J. Degan, of St. Saviour's, acquired site, Market Boswell, for church.

Colwyn Bay.—Rev. Father D. Wilkinson, St. Joseph's, Conway-rd., proposing schools

Coventry.—T.C. to authorise Corporation to provide central station and other stands and stations in city for omnibuses and motor-coaches.

Coventry.—T.C. approved: 12 houses, Nunt's-lane, W. R Lane; licensed premises, Tile Hill-lane, Atkinson's Brewery, Ltd.; lock-up garages, Harefield-rd., E. Woodhead; 11 houses, Nunt's-lane, A. E. Gilks; 10 houses, Fir Tree-av. and 6 houses, Ash Tree-av., W. H. Marriott; 31 houses, Molesworth-av., W. R. Lane; 4 houses, Barkers' Butts-lane, T. Randle; additions to Stoke Council school, Briton-rd., E.C.; 40 houses, Rotherham-rd., Kelley & Son; 6 garages, Moseley-av., Hall & Son; 8 houses, Siddeley-av., J. Claridge; 12 houses, Beanfield-av., A. E. Harris; 6 houses, Chestnut Tree-av., 7 houses, Pine Tree-av., and 4 houses, Elm Tree-av., S. Sutton.

Dagenham.—U.D.C. approved: 23 garages and workshops, rear shops at junction of Green-lane and Wood-lane, Becontree Heath, C. Eves; 6 private garages, rear of 3, 4, 5, 6, 7 and 8, Chafford estate, south side of High-rd., Chadwell Heath, F. E. Fawcett; 6 houses, Boltons Farm estate, Chadwell Heath, W. Robinson; alterations, "Old Hainault" public house, Romford-rd., Hog Hill, for Ind Coope; bank office, south side of Church-st., Lugenham, Barclays Bank, Ltd.

Darfield.—Members of St. Michael's R.C. Church, Lower Valley, raising funds for church.

Darlington.—Markets Committee decided to purchase land in Sanderson-st. for houses for members of fire brigade.

Darlington.—T.C. considering extensions public library fronting Crown-st.

Doncaster.—The Doncaster Co-operative Society, Ltd., to build dairy in York-rd. on site adjoining factory.

Doncaster.—Corporation to build swimming baths on site of Christ Church schools at £35,000.

Durham.—C.C. reported Mr. Fennell, architect, is preparing plans for additional 50 houses.

Ealing.—T.C. to borrow £8,000 for houses on central space at Village Park estate, been sanctioned by M.H.

Earlestown.—Plans approved for 'bus shelters, Market-st., and Hargreaves.

East Barnet. — U.D.C. approved plans: 10 houses, Fernwood-crescent, J. Hutchinson; 12 houses, Dimsdale-gardens, W. C. Leak & Sons.

Edmonton.—Sanction of M.H. to be sought for erection shops and flats on housing estate at Hazelbury-rd. been received by U.D.C.—M.H. also sanctioned £115,000 for houses on Brookfield estate.

Eton.—Plans approved by R.D.C.:—Farnham Royal: hotel, junction Buckingham-av. and Farnham-rd., Taylor, Walker & Co.—Stoke Poges: 4 houses, Rogers-lane, H. G. Gregory.—Gerrards Cross: 5 houses, Duke's Wood-av., H. H. Farwig; residential flats, Ethorpe Hotel, Ethorpe, Ltd.; hall, Congregational Church, Packhorse-rd., the Rev. F. G. Spooner.

Finchley.—U.D.C. approved: 8 houses, East End rd., east of Cavendish-av., A. Ibbetson; 4 houses, 22, 24, 26 and 28, Long-lane, adjoining "The Briars," G. Payne & Co.; bank premises, junction of Lyttelton-rd. and Hill-rise, National Provincial Bank, Ltd.

Finchley.—U.D.C. propose lavatory accommodation at Church End.—Plans to be prepared for school on Woodhouse estate. Accommodation for about 400 junior scholars.

Gateshead.—Plans approved by local E.C. for R.C. school at Teams. A. Harrison, architect, 69 and 70, High-st., Stockton-on-Tees.

Guiseley.—Lay-out plan approved for 48 houses, Carlton Manor estate. C. C. Slack, E. and S.

Hampshire.—C.C. approved, subject to approval B. of E.: Sites and Buildings Committee be authorised to incur following expenditure for Eastleigh (Shakespeare-rd.), new senior Council school, site and costs £760, erection £15,150—£15,910; Hartley Wintney junior Council school, alterations £805, work to offices £205—£1,010; Sarisbury new senior Council school, site and costs £750, erection £14,500—£15,250; Southwick junior Council school, alterations and additions £940.

Hampshire.—C.C. approved scheme of main road improvements at £1,000,000.

Hayes.—Notice been received by U.D.C. of intention of County Council to provide new public elementary schools to north Uxbridge-rd. to accommodate about 300 children; in Harlington or in southern portion of Hayes to accommodate 350 children; and to further enlarge Hayes Townfield School to provide additional accommodation for 400 children.

Heston and Isleworth.—U.D.C. approved: Westminster Bank, Ltd., alterations and additions, bank premises, 4, The Parade, Bath-rd.; P. Chase Gardener & Co., 71 houses, Hogarth-gardens; W. G. Thomas, alterations to factory, London-rd.; W. G. Thomas, works, London-rd.; P. Chase Gardener & Co., 18 houses, Carrington-av.; J. Monro & Son, factory, Syon-lane; Geo. Wimpey & Co., Ltd., 24 houses, Heath-rd.

Hornchurch.—Provision of senior school for 400 scholars at £19,000 been approved by Essex E.C.

Hove.—E.C. proposed to build two of three sections of new school at the Knoll for £29,820, and to extend Connaught-rd. school at £4,650, and East Hove school at £3,500.

Hungerford.—Council decided to proceed with plans for eight additional Council houses at Lambourn, and for 12 houses at Hungerford.

Hyde.—British Leather Cloth Manufacturing Co., Ltd., Spring-gardens, Manchester, proposing dining hall and kitchen, etc., at Newton House, Muslin-st., Newton Hyde. Plans by own engineer.

Hyde.—W. A. Dew, L.R.I.B.A., Market-chams., architect for billiards hall and shops in Borough-arcade, for W. Stansfield, The Lawn, Puddinglane.

Irlam (Lanes.).—Improvements proposed to St Teresa's schools, Liverpool-rd., by Rev. Father G. Swift. Plans by W. Ellis, F.M.S.A., 49, Deansgate, Manchester.

Keighley.—Crosshills New Church Society proposing church at Station-rd., Crosshills. Secretary to Building Committee, R. Maudsley, Kingst., Connolly, via Keighley.

Kingsbury (Middlesex).—Stag-lane aerodrome is to be extended.

Lancaster.—E.C propose Central school at Skerton for 320 children.

Leeds.—Tenders be invited for alterations and additions, Leeds Constitutional Club, at Roundhay-rd.

Leeds.—P. Robinson, F.R.I.B.A., architect, 51, Great George-st., preparing plans for office premises for Phonophones, Ltd., Merrion-st.

Leiston.—Plans of police station in King's-rd. been approved by U.D.C.

Leyland.—Preston Savings Bank, Church-st., Preston, acquired site, Hough-lane, for branch premises. Plans by A. C. M. Lillie, L.R.I.B.A., Dowry House, Brownedge, Bamber Bridge, near Preston.

Leyton.—T.C. approved: H. J. Hains, 8 houses and 1 garage, Cambrian-rd.; H. C. Clare, 6 houses and 10 garages, Whipps Cross-rd.

Leyton.—T.C. received M.H. approval for provision public washhouses.

Littleborough.—M.H. sanctioned 26 houses at Shore.

Liverpool.—H. E. Davies & Son, F. & A.R.I.B.A., Wellington-buildings, The Strand, architects, alterations and reconstruction of "Queen's Arms" hotel, Warbreck Moor, Aintree, for P. Walker & Son (Warrington & Burton), Ltd., 105, Duke-st.

Liverpool.—Plans being made to establish commercial library and newsroom.

London (Bermondsey).—M.H. held inquiry into application of B.C. to borrow £24,000 for branch laundry, library, and maternity and child welfare centre, Silver-st.

London (City).—L.C.C. recommend £15,250 in respect of acquisition of interests in properties required for widening of Royal Mint-st.

London (Kilburn).—City Corporation authorised repairs and improvements to lavatory accommodation at Queen's-park, Kilburn, at £500.

London (Lambeth).—B.C. received sanction from L.C.C. to borrow £2,400 for four dwellings on two vacant plots on Holderness estate.

London (Lewisham).—B.C. approved: J. G. Stephenson for L.C.C., 120 houses on Downham estate; H. R. Watt, 9 houses, Callender-rd.; G. T. Harman, 12 houses, Thorpewood-av.; P. B. Dannatt, 16 houses, Malyons-rd.; Lewisham; Walter Hall & Sons, Ltd., 82 houses, Selworthy-rd.; P. B. Dannatt, 20 houses, Malyons-rd.; Higgins Bros., 9 houses, Longton-av.; J. Watt, 20 houses, Daneby-rd.; H. S. Mitchell, addition to factory, Kemble-rd.; W. H. Winn, houses, Brockly-view, abutting on Lowther Hill and on Montem-rd., abutting upon Brockley-park, Forest Hill; J. A. Cole, building rear 20, Ravensbourne-rd., Catford, abutting upon Blythe Hill-lane.

London (Westminster).—City Council recommend that estimate of £380 for Caxton Hall works advised by Surveyor to London Fire Brigade and agreed to by City E. be authorised.

London (Woolwich).—B.C. recommend application to M.H. for sanction to borrowing £5,500 for maternity and child welfare centre on the Council's housing estate at Eltham.—Plans passed:—S. Browne, Eltham High-st., 12 houses, Glenlea-rd.; E. T. Jones, "The Mount," Chislehurst (on behalf of F. J. Chambers), 5 bungalows, Blanmerle-rd., Eltham; W. F. Cave, 1, Castellian-av., Elgin-av., W.9 (on behalf of Cave & Limeburn), 13 houses, Verdun-rd., Plumstead.

Long Eaton.—U.D.C. decided to erect 52 houses in Wellington-st. and Dockholme-rd.

Loughborough.—Jones & Parkinson, 8, St. Martin's, architects, additions to Liberal Club, for Trustees.—Stockdale Harrison & Sons, F. & A.R.I.B.A., 7, St. Martin's East, architects, for shops and premises in High-st., for Loughborough Sites, Ltd.

Luton.—Cecil A. Sharp, F.R.I.B.A., architect, Church Farm House, Cheam, Surrey, connected with scheme for proposed casual wards, workhouse and infirmary at Houghton Regis, for B.G.

Manchester.—Architects who have been appointed by Midland Bank, Ltd., to prepare plans for branch, King-st. and Brown-st., Manchester, are Whinney Sons & Austen Hall, F.R.I.B.A., 8, Old Jewry, E.C.2, with Sir Edwin Lutyens, F.R.I.B.A., Queen Anne's-gate, Westminster, S.W.

Manchester.—Charles Heathcote & Co., Lloyds-buildings, 53, King-st., architects for extensions, buildings in Trafford-park, for Carborundum, Ltd.

Mansfield.—Plans approved for School of Art at Westfield House, for E.C.

Matlock.—U.D.C. considering sewerage scheme. Application been made to M.H.

Morecambe.—Bare Wesleyan Methodists raising funds for church.

Merriston.—Board of the Swansea and South Wales Institute for Blind decided to erect institution on site of freehold premises.

Newcastle-on-Tyne.—L. J. Cowes & Partners, Carliol House, architects for reconstruction premises Northumberland-st. and St. Mary's-pl., for C. G. S. Buist, Ltd.

Northampton.—C.B. approved that B.E. submit estimated cost of scheme for repairing river bank in Calvesholme, opposite to Cow Meadow.—Plans approved: electricity sub-station, Mill-rd., Northampton Electric Light and Power Co., Ltd.; 8 houses, Murray-av., Chowns, Ltd.

Oldham.—C. T. Taylor Roberts & Bowman, 10, Clegg-st., architects for alterations at Poor Law Institution and erection verandah at "N" block, for B.G.—Libraries Committee propose alterations public library buildings.—It is also proposed to extend library by incorporation lecture hall.

* See also our List of Contracts, Competitions, etc.

Oldham.—E.C. to acquire portion of Moorside cricket ground for school.

Pendleton.—W. Telford Gunson & Sons, architects, 10, Marsden-st., Manchester, preparing plans for nurses' home at Hope Hospital, Pendleton, for Salford B.G.

Pontefract.—W. H. Newton, B.S., preparing plans additions Willow Park school and also public elementary school.

Portsmouth.—City Council agreed purchase for £12,000 disused Park racecourse at Farlington, for land development.

Retford.—Parochial Council St. Alban's, Rev. R. F. Wilkinson, proposing edifice by adding two more bays to nave in west front.

Romford.—Essex C.C. will build by direct labour, at £29,000, intermediate school.

Romford.—Arcade in South-st. to plans prepared by Harrington & Evans, architects, Western Lodge, South-st.

Seghill.—U.D.C. seeking sanction of M.H. to erect 40 houses

Sheffield.—Estates Committee given authority for Direct Labour Department to proceed with 30 houses, Greenhill estate, at £11,370.

Sheffield.—A. Brocklehurst & Co., F.R.I.B.A., 10, Norfolk-st., Manchester, architects for Sunday school at Woodseats, for Wesleyan Authorities.—W. Ellis, F.M.S.A., architect, 9, Hardshaw-st., St. Helen's, and 49, Deansgate, Manchester, preparing plans for extensions, school buildings at De la Salle College (Christian Brothers), Scott-rd.

Sheffield.—Sheffield & Ecclesall Co-operative Society, Ltd., acquired site, Hutcliffe-rd., for branch store.

South Shields.—T. A. Page & Sons, L. & A.R.I.B.A., architects, 67, King-st., preparing plans for alterations, "Beacon Inn," Lawe, for Vaux & Sons, Ltd.

Stretford.—Funds being raised to extend premises, Stretford Memorial Hospital, Seamore-grove, Old Trafford, which is estimated to cost £5,000. Francis Jones, F.R.I.B.A., 178, Oxford-rd., Manchester, honorary architect.

Sunderland.—M.H. held inquiry for permission to borrow £8,750 for provision of additional swimming bath for women, and filtration plant at High-st. West baths.

Swadlincote.—A. Heaton & Sons, The Strand, Derby, architects for workshops and store, High-st., for W. Jones Harvey & Co.

Taunton.—Bungalow, at £750, under the supervision of Andrews & Andrews, architects and surveyors, 16, Hammet-st., for E. Hooper, at Holway.

Thorne.—West Riding C.C. accepted tender £34,619 for elementary school, with caretaker's house, on Goole-rd.—R.D.C. propose public conveniences at Stainforth. Plans by Surveyor, H. Plews.

Tynemouth.—T.C. approved:—Extension of business premises West Percy-st., by W. Stockdale, for R. Graham, Ltd.; re-building of stores, 50, Bell-st., by W. Stockdale, for Jas. Miller & Son; proposed alterations and additions to premises, Saville-st. and Little Bedford-st., F. W. Woolworth & Co., Ltd.; 8 houses, Street No. 2, Hawkey's-lane estate, by Cackett & Burns Dick, for The Square Building Trust.

Uxbridge.—Council approved: Parkfield-av., Hillingdon, 15 houses, J. Chilton; Ickenham-rd., and North-waye, Uxbridge, 24 houses, Unit Construction Co., Ltd.; Harefield Sanatorium, piggeries and slaughter-house, Middlesex C.C.; King's-parade, Hillingdon, warehouse and showroom, Victoria Brick & Tile Co.

Wakefield.—P. Norris, F.R.I.B.A., City Surveyor, preparing plans underground conveniences, Bull-ring, at £3,100.

Warrington.—Warrington Co-operative Society, Ltd., Cairo-st., proposing bakery Winnick-rd. Plans by Architects' Department, Co-operative Wholesale Society, Ltd., Corporation-st., Manchester.

Weston (Yorkshire).—Restoration work at Parish Church, estimated at £300, for P.C.

Whitley and Monkseaton.—U.D.C. received sanction from M.H. to £7,126 for erecting shelter, cafe and conveniences on northern promenade.

Woodville.—G. Soar, Eureka-rd., Swadlincote, architect for garage and petrol station, Burton-rd., Woodville.

York.—M.H. given formal sanction borrowing £22,540 for 56 houses, Burton-lane estate.

TRADE NEWS

Duchess Theatre, Catherine-street, W.C.

We are informed that the vacuum-cleaning plant at the "Duchess's Theatre," illustrated in our last issue, was supplied by the Sturtevant Engineering Co., Ltd., of 147, Queen Victoria-street, E.C.4.

The lifts for this theatre were manufactured and installed by Messrs. Marryat & Scott, Ltd., of 40 and 57, Hatton-garden, E.C.1.

Builders' Merchants' Catalogue.

From Messrs. Nicholls & Clarke, Ltd., of 6-8, High-street, Shoreditch, comes a very handy catalogue, No. 24. This is a most general, practical and useful publication, and the amount of detailed information contained makes it something in the nature of a builders' compendium. Ready reference is possible through the full indexing section, and illustrated articles, specification and price of any piece or product may be found instantly. A copy of the catalogue will be forwarded upon application. We learn that Messrs. Nicholls & Clarke's showrooms have been remodelled and considerably enlarged, to allow space for an increased number of exhibits.

Signs.

The new works of the Brilliant Sign Co., Ltd., Shepherd's Bush, have recently been opened. In this connection the company has issued a new catalogue (5,000 edition) containing 64 pages, a great number of them being in four-colour blocks, which will be ready for distribution on January 1. This catalogue will embrace many new ideas, and will be forwarded on request. We learn that the very latest machinery has been installed in the new works to enable the company to reduce the cost of production to a minimum. An extra fire kiln has been installed, double the size of the old one, so that customers in the future will not be kept waiting for the "Permenart" Process Signs, this process being the sole monopoly of the Brilliant Sign Co., Ltd.

Coloured Portland Cement.

We learn that the Cement Marketing Company, Ltd., of Portland House, Tothill-street, S.W.1, have been experimenting for some time with the object of producing a coloured cement which, while possessing all the advantages of "Ferrocrete," the rapid hardening Portland cement, could be marketed at a price to enable architects, engineers, surveyors, builders, and others interested in constructional work to vary the colour of concrete at a negligible additional cost. The result of these experiments is now embodied in the new cement which has now been placed on the market under the registered title of "Colorcrete."

Although "Colorcrete" cement is a buff colour, the resultant concrete made with it has a pinkish tint. A red "Colorcrete" can also be supplied. Typical examples of concrete work for which "Colorcrete" can be used are, we learn, as follows:—Private streets, where "Colorcrete" will enable the carriageway to be laid so that it has the appearance of well-consolidated gravel, in most cases at a price which will compete most favourably with any other permanent form of construction; for estate development schemes (garage approaches, footpaths, crazy paving and surrounds to houses, stucco, etc.); caststone, etc., etc. The best effect from "Colorcrete" is obtained, we are given to understand, by removing the surface skin of neat cement, which in most cases can quite easily be done either by the use of a stiff broom before the concrete has hardened, or, in the case of concrete buildings or walls, "Retardo" can be applied to the shuttering to enable the surface skin to be brushed off quite easily on the removal of the shuttering. Full details of this interesting discovery may be obtained from the Company upon request.

NEW INVENTION

WE attended on Tuesday a practical demonstration of a novel system for drying-out new buildings, by means of which the process is completed in three to five days. This system, "Tubit," is at present being employed on new offices at Stockwell for Messrs. Scaffolding (Great Britain), Ltd., who are controlling it in Great Britain. Briefly, the process is carried out with a specially designed transportable machine, which, by means of rotary blower, forces hot air containing a high percentage of pure carbonic acid gas at pressure through a variable tubular conduit system from the outside into the sealed building. By this means the internal walls of the building are enveloped in hot air, and through the circulation of this air they become dry. All windows and doors are lathed or closed, and the hot air drives the moisture through the masonry or brickwork, the carbonic acid thereby being absorbed by the mortar, which (as we learn has been certified by tests) consequently attains a greater degree of hardness than when dried in the normal atmosphere for many months. The water which is set free evaporates and exudes through the pores of the masonry work into the open air. A return of the moisture is guaranteed to be absolutely impossible.

We are informed that over 80 million cubic feet were dried by this process in Central Europe in the 1928-29 season. Certainly, from our own inspection, the plastered walls of the Stockwell building appeared to be in a perfect condition after submission to the process, and a thorough tapping had failed to show any bumps or other flaws. Experience has shown, we learn, that when buildings have been dried by this process, they do not have to be redecorated so frequently, while for cinemas, theatres, houses, and other "rush" jobs, the advantages of speedy drying-out are obvious.

STEEL JOISTS.
STEEL GIRDERS.
STANCHIONS.
STEEL COLUMNS.

ROOF TRUSSES.
STAIRCASES.
BRIDGES.
C. I. TANKS.

SMITH WALKER LD.
CONSTRUCTIONAL ENGINEERS
16, CAXTON STREET
WESTMINSTER
S.W.1

TELEPHONE:
VICTORIA
2123
(4 LINES)

TELEGRAMS:
"FORMATION,
SOWEST,
LONDON"

FIREPROOF DOORS.
FIREPROOF FLOORS.
GUTTERING.
R. W. PIPES.

ORNAMENTAL WORK,
IN WROUGHT & C. IRON.
CORRUGATED IRON
BUILDINGS.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster ...	2 14 3	Do. Bullnose ...	9 15 0
Do., Bullnose...	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ...	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers...	26 10 0
Headers	20 10 0	One Side and two Ends ...	30 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS

Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	9 9	per yd.
Pit Sand	12 0	„ „
Thames Sand	12 6	„ „
Best Washed Sand	12 6	„ „
½ in. Shingle for Ferro-Concrete	12 0	„ „
¼ in.	12 6	„ „
½ in. Broken Brick	11 6	„ „
Pan Breeze	8 0	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads. Best Portland Cement. British. Standard Specification. Test £2 6 0 to £2 8 0 29s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Vitrocrete „ „	0 7 6
Super Cement (Waterproof)	3 16 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months' carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at riy. dp.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BEER STONE—RANDON BLOCK—

Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½

Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire.	
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides „	22 6
Sawn three or four sides „	27 6

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 6½
1½ in. to 2 in. ditto, ditto „	1 3½

HARE YORE—

Delivered at any Goods Station, London. Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto „	6 1½
4 in. sawn two sides slabs (random sizes) „	2 1½
3 in. ditto ditto „	2 10
2 in. self-faced random flags ..... Per yd. super	5 6

CAST STONE

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	26 0
4 × 7	23 0	3 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1 × 11	£30 0	1 × 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅝	18/-	1¼	30/-
¾	21/-	1½	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	24/-	⅝	16/6
1¼	30/-	¾	19/-
1½	34/-	1	24/-

1in. BATTENS, s. d. ⅞ × 2 ..... per 100 ft. 2 6

MATCHING (BEST).

Inches.	per sq.
⅝	16/6
¾	19/-
1	24/-

SAWN LATHS, s. d. Per bundle 2 6

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16 0	to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 14 0	to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 15 0	to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 16 0	to 1 1 0
Dry Cuba Mahogany, ft. cube	1 1 0	to 1 10 0
Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 14 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
„ In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas.....	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works Per yd. in 6 ft. lengths.

	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/1½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. „	1/3	10½d.	1/4½
3 in. „	1/6½	1/1½	1/8½
3½ in. „	1/11	1/4½	1/11½
4 in. „	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9	2 1
2½ in. „	2 9½	1 10½	2 7
3 in. „	3 0	2 1	3 1
3½ in. „	3 2	2 7	3 7
4 in. „	3 8	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. „ „	4 8	5 5	9 3
5 in. „ „	6 3	9 6	15 0
6 in. „ „	7 3	11 6	19 0

Gasket for jointing, 41/- per cwt.

	Per ton in London.		
IRON—	£ s. d.		£ s. d.
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars—Good merchant quality	11 10 0	to	12 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	11 10 0	...	12 10 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—Ordinary sizes, to 20 g.	13 0 0	...	14 0 0
„ „ „ 24 g.	14 0 0	...	15 0 0
„ „ „ 26 g.	16 0 0	...	17 0 0
Sheets Flat Best Soft Steel, C.R. and C.A quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g.	18 0 0	...	20 0 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	16 10 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	17 0 0	...	18 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	20 0 0	...	21 0 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, 3 in. to 6 in.	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	30 5 0
Pipe in coils	30 15 0
Soil pipe	33 15 0
Compo pipe	34 15 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	20 0 0

COPPER.

	s. d.
Seamless Copper tubes (basis) ..... per lb.	1 3
Strong sheet „	1 0
Thin „	1 1
Copper nails „	1 11
Copper wire „	2 0

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ...	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps ...	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 2/3 per lb. SOLDER.—Plumber's 1/-. Tinmen's 1/2. Blowpipe 1/3 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0 4 2	
„ „ „	in barrels ...	„	0 4 4
„ „ „	in drums ...	„	0 4 6
Boiled „	„	in barrels ...	„	0 4 6
„ „	„	in drums ...	„	0 4 9
Turpentine in barrels	„	0 3 10	
„ in drums (10 gals)	„	0 4 0	
Genuine Ground English White Lead, per ton	54 0 0		

(In not less than 5-cwt. casks.)

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

		£	s.	d.
GENUINE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polacco," "J." Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots ... per ton delivered		72	10	0
Red Lead, Dry (packages extra)	per ton	40	0	0
Best Linseed Oil Putty	per cwt.	0	15	6
Filicol	,,	0	15	6
Size. XD quality	ftn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	32 oz. fourths ...	6½d.
15 ,, thirds ...	3½d.	32 ,, thirds ...	9d.
21 ,, fourths ...	3½d.	Obscured Sheet, 15 oz.	3½d.
21 ,, thirds ...	4½d.	,, ,, 21 oz.	4½d.
26 ,, fourths ...	4½d.	Fluted, 15oz. 6½d., 21oz.	9d.
26 ,, thirds ...	6½d.	Enrilled, 15oz. 4½d., 21oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅛ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White...	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinned do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

HOUSING PROGRESS IN SCOTLAND

THE following figures show the progress that has been made in State-aided housing schemes in Scotland to October 31, 1929 :—

	Completed.	Under construction.
1919 Act	25,129	—
Do. (by public utility societies)	421	—
Private subsidy schemes (1919 Additional Powers Act)	2,324	—
Slum clearance schemes ...	10,768	1,852
1923 Act :—		
By local authorities ...	4,028	—
By private enterprise ...	17,262	1,280
By public utility societies	80	—
1924 Act :—		
By local authorities ...	39,817	6,095
By private enterprise ...	1,377	1,121
By public utility societies	127	—
Demonstration houses ...	17	—
Steel houses erected on behalf of Government by Scottish National Housing Company	2,552	—
	103,902	10,348

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *office not later than Tuesday evening.*

Cupar.—HOUSES.—Permission to erect 24 houses at Balgarvie-road has been granted to the Cupar Town Council by the Cupar Dean of Guild Court.

Cupar.—SCHOOL. — A £30,000 scheme by the Fife E.C. for the provision of additional accommodation on an extensive scale at Bell-Baxter School, Cupar, will, it is expected, be started in the beginning of next year. The plans have been approved by the Scottish Education Department, and estimates are being invited.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the Office of the City Engineer :—Harestane-road—alterations for Rev. J. H. Sharp (Mr. W. M. Wilson, architect, 61, Meadowside); North Lindsay-street — waiting-room for Messrs. W. Alexander & Son, Ltd. (Messrs. Gordon & Scrymgeour, architects, 7, Ward-road); Seagate—warehouse for Messrs. A. Powrie & Son (Messrs. James Lowe & Co., architects, 104, Commercial-street).

East Lothian. — BRIDGES. — The Eastern District Committee of East Lothian County Council have recommended to the Ministry of Transport two schemes for bridge widening on the borders of Berwickshire. One of these at Dunglass will entail an outlay of £18,000 and another at Bilsdean of £10,000. It is also proposed to improve the railway bridge at Birnieknowes-road corner.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 982.

PATENTS

320,886.—F. W. McRae : Paint or waterproofing material, and process of producing the same.

320,990.—J. J. Greenwood : Tile for roofing.

299,361.—I. G. Farbenindustrie Akt.-Ges. : Process of preventing the deposition of driers in linseed oil varnishes.

321,013.—T. G. Baker : Building construction.

321,015.—G. B. Brader : Methods of jointing concrete or like pipes.

321,023.—J. S. Whitehouse : Method and apparatus relating to the manufacture of bricks.

299,427.—A. Metherell : Cementitious material.

321,055.—E. Trumpy : Construction of floors and ceilings.

321,070.—A. Eichengrun : Processes of fireproofing wood.

321,103.—D. A. Deacon : Waste and overflow fittings for baths and basins.

303,836.—J. Werner and F. Schlobach Ges. : Method of producing imitations of valuable kinds of wood and tarsia work.

Note.—Period for opposition expires on January 6, 1930.

Specifications for Paints, etc.

Of the series of 61 British Standard Specifications for Paints, Varnishes and Paint Ingredients issued by the British Engineering Standards Association, three remained to be issued. One has recently been published, namely B.S.S. for Turpentine Type 2, and announcement is now made of the publication of two more, as follows :—B.S.S. No. 370-1929, Venetian Red for Paints; B.S.S. No. 371-1929, Ready-mixed Linseed Oil Paint (Oil Gloss) Purple Brown Oxide of Iron. These specifications follow the lines of those previously issued, and contain clauses regulating the composition, together with standard reception tests for the purchase of these materials; appendices also being incorporated outlining standard methods for carrying out the tests. Copies may be obtained from the British Engineering Standards Association, Publication Department, 28, Victoria-street, S.W.1, price 2s. 2d. each, post free.

A Sheffield Market to be Demolished.

The Sheffield Corporation has decided to demolish the Fitzalan Market, a large building in the centre of the city, to make way for a new shopping centre. The tenants are to remove to a new market.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1½"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1½"	1¾"
Deal edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1¼"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	"	43	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

¶ Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Alsager.—Two public conveniences and a children's shelter, in connection with the recreation ground scheme, for the U.D.C. Mr. H. V. Lynam, surveyor. Quantities by Mr. H. V. Lynam:—

T. Smith & Co., Crewe	£864 14 0
George Edwards & Co., Alsager	820 10 6
W. E. Millward, Alsager	753 0 0
*Joseph Edwards & Son, Alsager	657 0 0

(Tender accepted subject to adjustment.)

Ambleside.—Alterations and additions to the Royal Hotel at Bowness. Mr. J. Stables, architect, Bank-chambers, Ambleside:—

*Pattinsons (Windermere), Ltd., Windermere.

Armthorpe.—Catholic Church in Mere-lane, for the R.C. Authorities. Messrs. Empsall, Clarkson & Clarke, L.R.I.B.A., architects, Permanent-chambers, Piece Hall-yard, Bradford:—

*J. Horkin, Hightown, Liversedge.

Ashton-in-Makerfield.—Filter house at Leyland Green, for the U.D.C. Mr. H. Busby, Surveyor and Waterworks Engineer:—

*J. Watson, Ashton-in-Makerfield.

Bath.—Six covered pens for pigs on the space at the west end of the Cattle Market, for the T.C.:—

‡Stock & Collings £137

Bath.—Installation of electric fittings in connection with the rebuilding of Statutory Hospital, for the T.C.:—

‡Lambert & Sons, Broad-street, Bath... £659

Belfast.—Extensions to Dufferin Hospital, for the B.G. Messrs. Young & MacKenzie, chartered architects, Belfast:—

*F. B. McKee & Co., Ltd., Midland Building Works, Belfast £24,969

Belfast.—Public convenience in Musgrave-park; for the C.B. City Surveyor:—

*R. Kernasham, 15, Talbot-street, Belfast.

Berkshire.—Medical Superintendent's house in the grounds of the Berkshire Mental Hospital, near Wallingford, for the Committee. Messrs. Willcocks & Greenaway, architects, 11, Friar-street, Reading:—

F. W. Mattingley, Wokingham	(a)	£3,513 18
	(b)	214 5
	(c)	35 10
Hoskings & Pond, Newbury	(a)	3,116 10
	(b)	97 0
	(c)	26 10
Canning & Sargeant, Wokingham	(a)	3,014 6
	(b)	83 6
	(c)	16 19
E. C. Hughes, Wokingham	(a)	2,823 0
	(b)	66 0
	(c)	20 0
Norris & Co., Sunningdale	(a)	2,797 0
	(b)	72 15
	(c)	23 10
Cox & Sons, Maidenhead	(a)	2,734 0
	(b)	103 0
	(c)	33 10
Hinkins & Frewin, Oxford	(a)	2,720 0
	(b)	78 13
	(c)	29 6
A. C. Dean, High Wycombe	(a)	2,665 0
	(b)	98 0
	(c)	19 10
A. Cox & Sons, Ltd., Abingdon	(a)	2,650 0
	(b)	62 10
	(c)	16 4
Kirby & Sons, Dorchester	(a)	2,645 0
	(b)	53 10
	(c)	16 13
Brasher & Sons, Wallingford	(a)	2,632 2
	(b)	48 4
	(c)	22 16
Blake Bros., Didcot	(a)	2,617 13
	(b)	102 18
	(c)	29 1
Boshers, Ltd., Cholsey	(a)	2,497 0
	(b)	60 2
	(c)	15 15

(a) *The House.* (b) *Way-in.* (c) *Entrance gates.*

Birkenhead.—Gentlemen's convenience on land fronting Ilchester-road, for the Corporation. Mr. R. W. Johnston, Borough Engineer and Surveyor:—

G. P. Snape & Sons, Birkenhead
W. E. Hughes, Ltd., Birkenhead.
G. Ellidge & Sons, Birkenhead.
*Works Department, Birkenhead Corporation £229

Blackpool.—Warehouse corner of Talbot-road and Gorton-street, Blackpool, for Messrs. C. Crewe, Ltd., shippers merchants. Mr. Halstead Best, F.R.I.B.A., architect, 20, Clifton-street:—

*Exors. of H. Cookson, Blackpool.

Bourne.—Eight houses at Deeping St. James, for the R.D.C. Mr. T. Lake, surveyor and architect:—

*L. P. Longland, Baston £2,720

Bradford.—Reconstruction of shop premises at Hall Ings, for Messrs. Speight & Fell:—

*Wm. Mason & Sons, Ltd.

Braintree.—Nurses' house, at the Union House, Bocking, for the B.G. Mr. A. R. Dannatt, architect, Great Waltham, Chelmsford:—

*C. A. Gray, 2, Rayne-road, Braintree.

Bristol.—46 houses on the St. Anne's housing site, and 48 on the Horfield-court housing site, for the T.C. Mr. L. S. McKenzie, City Engineer and Surveyor, Housing Department, 51, Prince-street:—

(48)—
*Pugsley & Son, 198, Cheltenham-road, Bristol £18,480
(46)—
*G. Bryant & Sons, Upper Sandhurst-road, Brislington, Bristol 16,835

Carlisle.—Five miles of earthenware pipe sewers (9 in. to 6 in.), with manholes and other appurtenant works, at Scotbys, for the R.D.C. Messrs. Elliott & Brown, chartered civil engineers, Burton-buildings, Parliament-street, Nottingham:—

Border Engineering Co., Ltd., Whitehaven	£21,563 8 3
Rainey Bros., Barrow-in-Furness	19,000 0 0
H. Coxhead & Co., Ltd., Middlesbrough	18,611 0 0
W. Kennedy, Monkton Village	17,333 2 0
J. W. & S. Dorin, Whitley Bay	17,325 12 8
G. Mackay & Son, Edinburgh	13,973 17 8
David Thompson & Sons, Ltd., Carlisle	13,536 4 0
W. J. Smith, Manchester	13,513 1 8
M. Arundel, Manor Works, Wakefield	13,200 0 0
Turner & Co., London	12,993 0 0
Cleghorn & Co., Ltd., Carlisle	12,950 13 6
Sangwin, Ltd., Hull	12,658 2 0
E. Taylor & Son, Ltd., Bromley Cross	12,497 6 0
*J. Millar, 15, London-road, Carlisle	12,008 3 6

Carlisle.—Installation of electric light in the 250 new houses in course of erection at Raffles Newtown and Botcherley estates, for the T.C. Mr. P. Dalton, City Engineer:—

*R. M. Hill & Sons, Carlisle.

Castleford.—Sanitary conversions at Duke-street, Charles-street and Kassall-street, for the U.D.C.:—

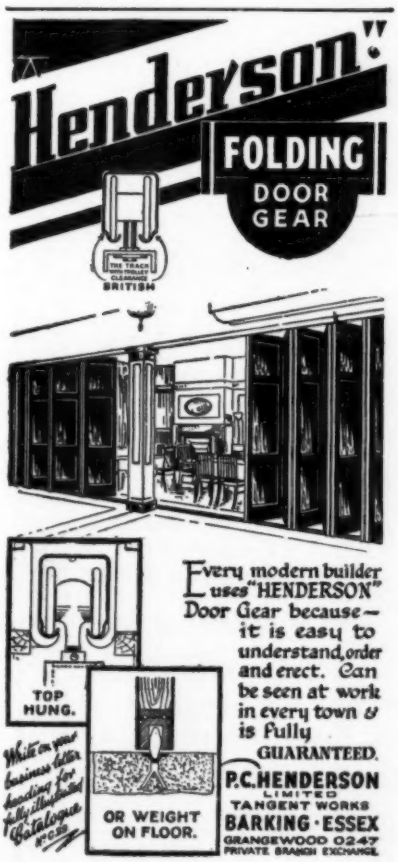
J. L. Rodgers & Sons £510 6 10

Cheadle and Gatley.—Alterations and additions to the surveyor's offices at the rear of the Council Offices, 19, High-street, for the U.D.C. Mr. J. Wrest, engineer and surveyor. Quantities by the engineer:—

*J. Alcock & Sons, Cheadle.

Colchester.—Nurses' home at Severalls Mental Hospital, for the Essex C.C. Mr. John Stewart, F.R.I.B.A., architect, Old Court, Springfield, Chelmsford:—

*C. Deaves, Essex £12,533


Henderson"
FOLDING
DOOR
GEAR
BRITISH
TOP HUNG.
OR WEIGHT ON FLOOR.
Every modern builder uses "HENDERSON" Door Gear because—it is easy to understand, order and erect. Can be seen at work in every town & is fully GUARANTEED.
Write on your business letter heading for fully illustrated Catalogue No. 29
P.C. HENDERSON LIMITED
TANGENT WORKS
BARKING · ESSEX
GRANGEWOOD 0247
PRIVATE BRANCH EXCHANGE

Coventry.—Gas-meter testing station, combined with weights and measures sub-office, on the site at Foleshill-road, for the T.C. Mr. J. H. Gilbert, architect, 9, Hay-lane. Quantities by Mr. John Binley:—

*Johnson & Newton, Coventry £2,550

Crewe.—Ornamental iron bandstand, for the Corporation. Mr. L. Reeves, Borough Engineer and Surveyor:—

*W. A. Baker & Co. (1910), Ltd., Westgate Ironworks, Newport (Mon.).

Cupar.—Improvements at the Clatto reservoir, for the T.C. Messrs. Bruce & Proudfoot, civil engineers, 63, Nicol-street, Kirkcaldy:—

*Casey & Darragh, Stirling £2,531 1 3

Dartford.—Boundary walls at the hospital in Bow Arrow-lane, for the Dartford Joint Hospital Committee. Mr. T. Woller, architect, 31, Westhill:—

Friday & Son, Erith	£870
W. & F. Blay, Ltd., Dartford	849
—. Dibblin, Dartford	785
—. Archt, Dartford	722
Tatner & Co., Dartford	705
P. M. Keevil, Dartford	699

Eastbourne.—Alterations, additions; redecorations, hot-water and plumbing work at "Egerton Lodge," for Mr. E. Challinor. Messrs. Ross & Dinnis, surveyors:—

*Peerless Dennis & Co., Ltd., Eastbourne £1,907

Edinburgh.—Demolition of buildings at 203-213a, Pleassance, and 86-94, East Crosscauseway, for the T.C. Mr. Wm. Allan Macartney, Burgh Engineer:—

A. Morrison, Musselburgh	£600
J. Hunter, Canongate, Edinburgh	600
Dobson, Ltd., Edinburgh	595
J. A. Swift, Leith	450
E. Buchan, Slateford	450
*Fyfe & Co., Glasgow	420

Fairhaven (Lancs).—Vicarage for St. Paul's Church, for the Vicar, Rev. T. Mullineaux. Messrs. Taylor & Young, F. & A.R.I.B.A., architects, 19, Chapel-walks, Manchester:—

*J. E. Myerscough & Co., Lytham St. Annes.

Featherstone (Yorks).—Completion of Tower scheme for Parish Church for the Parochial Church Council, Vicar, Rev. J. Gray. Mr. W. Hamilton Fearnley, architect, Station-road:—

*Ellison & Ward, Featherstone, near Pontefract.

Frome.—20,000 gallon concrete water reservoir at Nunney Catch, near Frome, for the R.D.C. Mr. J. A. Beynon, engineer, Nunney-road:—

*F. J. Seward, Butts-hill, Frome... £166 5 6

Gellygaer.—40 tons of steel trough decking, for new bridge at Tirphil, for the U.D.C. Mr. F. Read, surveyor:—

Trough Decking, Ltd., London (about)	£1,250
Joseph Westwood & Co., London	1,123
Dorman, Long & Co., London	1,070
Braithwaite & Co., Newport	1,025
E. C. & J. Keay, Ltd., Birmingham	1,025
Horseley Bridge & Engineering Co., Birmingham	988
Fairfield Shipbuilding and Engineering Co., Chepstow	950
*M. A. K. Fraser & Co., Cardiff	900

Godalming.—Forty-four non-parlour cottages, for the T.C. Mr. G. Berham Hartfree, Borough Architect, Engineer and Surveyor:—

Per pair—	*South.*	*Large North.*	*Small North.*
G. Sheppard, Guildford	£721	£725	£623
Raggett & White, Godalming	700	681	607
T. Bishop, Godalming	670	675	575
Guild of Builders, Guildford	646	650	593
*Enticknap Bros., Wormley	624	642	525
J. S. Harper, Midhurst	620	558	512
A. E. Guest & Co., London	606	540	498
Borough Surveyor's estimate	619	620	565

Goole.—22 "B" type and 50 "A" type houses on the Marshfield site, for the U.D.C. Mr. J. H. Castle, engineer and surveyor:—

*Bainbridge (Builders), Ltd., Bank-chambers, Scott-lane, Doncaster... £25,315

Gravesend.—Internal redecorations at the Town Hall, for the T.C. Mr. F. T. Grant, Borough Engineer and Surveyor, 5, Woodville-terrace, Gravesend:—

*Humphrey & Co., 94, Cross-lane East, Gravesend £190

Great Yarmouth.—24 two-roomed flats in two two-story blocks on the Southtown Common estate, for the C.B. Borough Engineer:—

G. R. King, Northampton	£3,348 0
E. E. Pestell	3,080 0
Crow & Palmer	2,854 18
H. R. Middleton & Co., Ltd.	2,750 0
R. H. Carter & Son, Ltd.	2,700 0
H. A. Holmes & Son	2,420 0
F. A. Osborne	2,370 6

(Remainder of Great Yarmouth.)

Halifax.—Extension of the verandah in the Market Hall, for the C.B. Borough Engineer:—

*J. H. Naylor & Son, Lee Mount, Halifax.

Halstead.—Houses, for the R.D.C.:—

White Colne (pair of houses)—
*C. Wash, Earls Colne £625

High-street Green, Sible Hedingham (two pairs)—
*H. G. Bragg, Halstead .....per pair 630

High-street Green, Sible Hedingham (two pairs)—
*A. & J. Aldred, Halstead .....per pair 632

Toppesfield (two pairs)—
*Palmer and Corder, Sible Hedingham .....per pair 634

Great Maplestead (one pair)—
*H. W. Bone, Cole Engaine.....per pair 635

Crouch Green, Castle Hedingham (two pairs)—
*G. T. Elsdon, Sible, Hedingham per pair 632

Gainsford End, Toppesfield (one pair)—
*G. T. Elsdon, Sible Hedingham per pair 646

Harrow-on-the-Hill. — Convenience at Roxeth recreation ground, for the U.D.C. Mr. J. P. Bennett, engineer and surveyor:—
*James and Woodworth, Roxboro-road, Harrow £450

Hexham.—Senior Council school, to accommodate 440 scholars, for the Northumberland E.C. Mr. C. Williams, Director of Education, The Moothall, Newcastle-upon-Tyne:—
'Adam R. Robertson, Blyth..... £15,300

Heywood.—Alterations at St. John's Church of England schools, Siddall-street, for the E.C. Borough Engineer. Municipal Buildings:—
†Blakeley & Wild, Heywood.

Hinckley.—Pump house in connection with the Coventry-road sewage works, for the U.D.C. Mr. J. S. Featherston, engineer and surveyor:—
*J. R. Cooke & Sons, Broughton Astley, near Leicester £647

Horsham.—Fire Station and living quarters in Horsham-park, North-street, for the U.D.C. Mr. C. G. Atkinson, surveyor:—

T. Shaw & Son, Horsham	£3,025
W. F. Pannett & Son, Horsham	2,935
H. G. & A. Osman, Ltd., Oxshott ...	2,910
Harrison Smith Bldgs., Ltd., Birmingham	2,865
Childs & Son, Woking	2,854
Bartley & Ward, Ltd., Crawley	2,770
Hoad & Taylor, Ltd., Horsham	2,666
W. G. Tarrant, Ltd., Byfleet	2,596
E. H. Cummins & Co., Ltd., Dorking	2,584
H. Lindfield & Son, Horsham	2,447
G. Potter, Ltd., Horsham	2,440
*Murrell Bros., Horsham	2,414

Horsham.—30 cottages in New-street, Littlehaven-lane and Millthorpe, for the U.D.C.:—

	2 cottages New street.	4 cottages Littlehaven-lane.	24 cottages Millthorpe.
Crawley & Co., Hackney	—	—	£16,942
W. A. Gatfield	£896	£1,696	—
Hillman & Murrell...	1,140	—	—
Hoad & Taylor	1,159	2,031	11,815
Mayat, Ltd.	1,125	2,045	11,730
Murrell Bros.	964	1,800	9,246
W. F. Pannett & Son	1,170	2,075	—
G. Potter, Ltd.	1,037	1,902	11,137
H. E. Ramsey & Co.	1,080	2,120	12,450
Surveyor to U.D.C....	925	1,699	9,663
*W. Tickner, Worthing	830	1,490	8,800

Leeds.—Two electricity transformer chambers, for the T.C.:—
Royal Park-road, Headingley—*S. Flockton.
Roper-avenue, Roundhay—*Paul Rhodes, Ltd.

Leicester.—Education offices in Newark-street, for the E.C. Messrs. Stockdale, Harrison & Sons, & George Notts, architects, 7, St. Martin's East, Leicester:—
*Bowles & Son, Leicester £14,760

Leyland.—New buildings, for the Governors of Leyland Balshaw's Grammar School. Mr. S. Wilkinson, F.R.I.B.A., architect, 16, Ribblesdale-place, Preston:—
*R Baron, Ltd., Preston.

London.—Decorative and minor repair work at the Great Smith-street establishment, for the Westminster City Council, City Engineer:—

John Garlick, Ltd.	£356 0
Walter Lilly & Co.	335 0
F. C. Hoskins & Co.	307 2
Whittle Bros.	293 10
*Sims & Russell	250 0

¶**London.**—The following contracts, over £500 in value, have been entered into by H.M.O.W. for the week ended 23rd instant:—
Stirling District—plumbers', zincworkers', coppersmiths' and gasfitters' work—R. Frater, Portstreet, Stirling.
Blackburn District—ordinary works and repairs—W. H. Ainsworth, Ltd., Blakey-street, Blackburn.
Natural History Museum, Kensington—erection of studies over East-arcade—W. J. Marston & Son, 87, Wandsworth-bridge-road, Fulham, S.W.6.
Perth District—carpenters' and joiners' work—Masterton & McGregor, 46, Victoria-street, Perth.
Liverpool Employment Exchange, Leece-street—concrete staircases—C. & G. L. Descer, Ltd., 118, Everton-road, Liverpool.
Eastbourne District—ordinary works and repairs—Bainbridge & Son, 139, Terminus-road, Eastbourne.
G.P.O. Sth., Carter-lane, E.C.—construction of a life enclosure—A. D. Dawnay & Sons, Ltd., Steelworks-road, Battersea, S.W.11.
Preston-park Telephone Exchange, Brighton—erection of—H. T. Brisley, High-street, Uckfield.
Harrow District—ordinary works and repairs—A. H. W. Todman & Son, 57a, High-street, Wealdstone.
Denton Employment Exchange—erection of—J. B. Catlow & Son, Ltd., Manchester-road Saw Mills, Denton, near Manchester.
Edinburgh District—painters', paperhangers' and gilders work—A. Hutton & Son, 35, Dundas-street, Edinburgh.
Glasgow District—slaters' work—J. Smith & Son, 30, Possil-road, Glasgow, C.4.
Stirling District—plasterers' work—A. Walls, 28, Thistle-street, Stirling.
Dundee District—plumbers', zincworkers', coppersmiths' and gasfitters' work—A. W. Young, 85, Hawkhill, Dundee.
Weymouth District—ordinary works and repairs—A. E. Whetham, Grange-road, Weymouth.
Shettleston District Sorting Office—trades—A. A. Stuart & Sons, 250, Westmuir-street, Parkhead, Glasgow; Lambhill Ironworks, Ltd., Lambhill, Glasgow; McDonald & Hughes, 243, N. Woodside-road, Glasgow; G. & R. Ross, Backcauseway, Parkhead, Glasgow, E.1; Cosmos Decorators, Ltd., 130, Coburg-street, Glasgow, C.5; Wotherspoon & Grant, Blackmoss, Bellshill, Glasgow; McCulloch & Giffen, 47, Rose-street, Glasgow, C.3; W. Walker & Sons, 251, Eglinton-street, Glasgow, C.3.
Hillmorton Radio Station, near Rugby—extension of—K. Archer & Sons, Ltd., 12, Wellington-street, Northampton.
Aberdeen District—painters' work—Mr. K. Mackintosh, 20, Loch-street, Aberdeen.
Aberdeen District—carpenters' and joiners' work—D. MacAndrew & Co., Ltd., 120, Loch-street, Aberdeen.
Dundee District—painters' work—Allan Boath, Ltd., 141, Nethergate, Dundee.
Glasgow District—carpenters' and joiners' work—W. McCall & Sons, 5, Balmano-street, Glasgow.
Edinburgh District.—excavators', masons' and bricklayers' work, and carpenters' and joiners' work—W. & J. R. Watson, Ltd., 48, Iona-street, Edinburgh.
Stirling District—glaziers' work—J. C. Cooper, 108, Cadzow-street, Hamilton.
Dundee District—carpenters' and joiners' work—W. & R. Brownlee, 50-54, Small's Wynd, Dundee.
Weston-super-Mare Head Post Office—alterations and additions—E. Walters & Son, St. Andrew's-works, Bristol.
Edinburgh National Gallery, The Mound—J. Clark & Son, 21, George-street, Edinburgh.

London.—Cleaning and/or painting of Council schools, for the L.C.C.:—

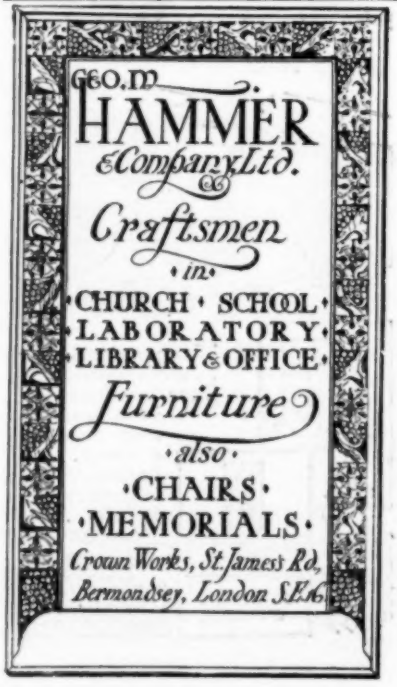
	Bromley Hall-road (Poplar, S.)—	*Alternative.*
R. Woollaston & Co., 40, Turner's-road, Limehouse, E.3	*£1,096	£1,214
Stoneley & Co.	1,215	1,215
George Barker	1,287	1,385
Stapleton & Sons	1,299	—
W. J. Clemens	1,300	1,393
H. C. Horswill, Ltd.	1,520	—
Architect's estimate	1,274	—
Buckingham-street (Islington, W.)—		
Stevens & Sons, Crouch-hill	1,446	1,517
S. Shaw, 3, Thornhill-road, Barnsbury, N.1	—	*1,516
F. Cottrell, Ltd	1,722	—
Whitbys, Ltd.	1,753	1,812
Holland & Hannen and Cubitts, Ltd.	1,785	1,850
E. Pollard & Co., Ltd.....	1,851	1,851
Pitcher Construction Co., Ltd.	1,864	—
Marchant, Hirst & Co.	1,846	1,946
N. Lidstone & Son	1,992	—
Patman & Fotheringham, Ltd.	2,117	—
Architect's estimate	1,602	—

London.—Erection of the South-East London Technical Institute, Deptford, for the L.C.C.:—

	A. Tender on basis of materials being obtained from any source.	B. Tender on basis of certain materials being supplied from and manufactured within the British Empire.
Prestige & Co., Ltd.	£119,126	£119,730
Leslie & Co., Ltd.	119,171	*No tender submitted*
Thomas & Edge	118,489	£119,189
Bovis (1928), Ltd.	118,621	*No variation*
Wm. Downs, Ltd.	§117,232	—
John Garrett & Son, Ltd.	116,768	*No variation*
J. & C. Bowyer, Ltd.	116,492	*State that alternative price would be submitted on application*
W. H. Gaze & Sons, Ltd., Kingston-upon-Thames	§114,983	—
L. H. & R. Roberts	113,726	£114,025
G. E. Wallis & Sons, Ltd., Maidstone	†113,250	—
Wilson Lovatt & Son, Wolverhampton	112,763	*No variation*
F. R. Hipperson & Son	112,000	*"Nil" statement submitted*
C. P. Roberts & Company, Ltd.	109,490	*No variation*
*Albert Monk, Lower Edmonton, N.9	108,666	*No variation*
Architect's estimate	111,621	—

†Based on assumption that the whole of the materials, with the exception of timber and asphalt, shall be of British production and manufacture.
§Provides for all British material.

(Remainder of London.)



Keeton's-road (Rotherhithe)—		
Sykes & Son, Ltd.	1,086	—
W. J. Dixon & Sons, 3, Blue Anchor-lane, Bermondsey, S.E.16	1,167	*1,194
E. C. Sames & Co.	1,204	1,254
H. W. Spinks	1,231	1,285
Turnbull & Son	1,508	1,581
Castle Brothers, Ltd.	1,508	—
Architect's estimate	1,121	—
Olga-street (Bethnal Green, N.E.)—		
W. J. Clemens	1,179	—
George Barker, 48-50, Newroad, Whitechapel-road, E.1	1,183	*1,265
Stevens & Sons	1,285	1,356
Chessums, Ltd.	1,302	1,302
Geo. Butters & Sons	1,446	—
The Mond Staffordshire Refining Co., Ltd.	2,004	—
Architect's estimate	1,224	—
Dage's-walk (Bermondsey, W.)—		
W. J. Dixon & Sons, 3, Blue Anchor-lane, Bermondsey, S.E.16	1,007	*1,029
H. W. Spinks	1,078	1,124
E. C. Sames & Co.	1,098	1,098
Sykes & Son, Ltd.	1,102	—
Falkus (Public Works), Ltd.	1,214	1,271
Turnbull & Son	1,243	1,297
Samuel Blow, Ltd.	1,426	—
Castle Brothers, Ltd.	12½ *per cent. above cost price*	
Architect's estimate	1,116	—
Stanford-street (Battersea, N.)—		
Prestige & Co., Ltd.	941	*1,007
Triggs & Co., Ltd.	1,072	1,122
H. T. Oliver & Sons	1,156	1,156
W. Hammond, Ltd.	1,160	—
W. H. Gaze & Sons, Ltd. ...	1,225	—
Holliday & Greenwood, Ltd....1,239		—
H. S. Lee, Ltd.	1,256	—
Architect's estimate	1,087	—

London.—Acoustic felt for certain rooms at City Hall, for Westminster City Council :—

‡W. Cullum & Co., Ltd., 50, Britannia-street, W.C.1	£904 6 3

London.—Alterations at Monck-street depot, for the Westminster City Council :—

F. C. Hoskins & Co., Ltd.	£197 12
Army & Navy Co-operative Society, Ltd.	184 0
Sims & Russell	166 0
*Walter Lilly & Co.	159 0

London.—Further covering over at the Metropolitan Cattle Market in connection with the General and Pedlars' Market, for the City Corporation :—

Moreland, Hayne & Co., Ltd.	£4,212
M. T. Shaw & Co., Ltd.	3,925
J. Westwood & Co., Ltd.	3,700
F. Braby & Co., Ltd.	3,667
*Boulton & Paul, Ltd.	3,125

London.—Improvements in the lavatory accommodation at Lett's Wharf, for the City Corporation :—

W. H. Wagstaff & Son	£616
G. T. Coote	595
*F. J. Howard	550

London.—Conveniences for children and new walls and railings, etc., to the new gardens at High-street recreation ground, for the Lambeth B.C. Borough Engineer :—

Franks & Simons	£890
Glassup & Co., Orpington	873
Hammond & Barr, Ltd.	802
R. Dixon & Sons	764
H. D. Harding, Ltd.	761
J. Crewdson, Horley	755
W. A. King & Son (Brixton), Ltd.	750
J. S. Daniels & Son	750
H. T. Oliver & Son	678
*Hawkins & Co., 353a, Norwood-road, S.E.27	540

(All of London.)

London.—Widening of the entrance to Cobbett-street depot, including the pulling down of 6, Cobbett-street, and altering and extending the smith's shop and sewers office, etc., for the Lambeth B.C. :—

	Amount.	*Allowance for old materials.*
Hammond & Barr	£896	—
H. D. Harding, Ltd.	833	£12
Glassup & Co., Orpington	812	34
W. A. King & Son (Brixton), Ltd.	810	10
J. Crewdson, Horley	763	7
J. S. Daniels & Son	750	15
R. Dixon & Sons	713	—
*Lamerton & Norris, 79, Crystal Palace-road, S.E.22	690	15

London.—Dwellings in Dassett-road and Tivoli-road, for the Lambeth B.C. :—

*John Crewdson, Horley (In lieu of tender withdrawn.)	£4,416

London.—Provision of handrails to steps leading to houses in the third section of the Grove Park estate, for the Lewisham B.C. :—

H. A. Hewens & Son	£289 10
*S. W. Farmer & Sons	160 0
J. G. Dolby	145 0

London.—Repainting and external decorations to wood and ironwork of premises on the Grove Vale housing estate, for the Camberwell B.C. :—

Page, Hirshman & Co.	£2,345 0
J. S. Daniels & Sons	2,100 0
*L. Kazak & Co.	1,824 0
Canonbury Const., Ltd.	1,779 0
C. W. Warrick	1,750 0
*W. Godsmark	1,650 0
A. D. Johnson	1,585 10
W. E. Greenwood & Son, Ltd.	1,482 5
E. A. Thorn, Sutton	1,425 0
Slade Bette	1,425 0
F. Whittlesea	1,398 0
George Woolley	1,270 0
Hawkins & Co.	1,253 17
*William Pitt, Wallington	1,153 10
Rogers & Rogers	1,147 0
Andrew Miller	1,120 10
W. A. Kellaway & Co., Ltd.	1,116 0
Antique & Modern, Ltd.	1,090 10
F. A. Cory	1,080 0
James & Woodworth, Cardiff	995 0
H. Lawrence & Son, Coulsdon	955 0
Stevenson, Newcastle	945 12
J. A. Farmer	940 0
*Henry May & Sons	930 0
*Hewitt & Sewell, Ltd.	886 0
‡Whittle Bros., Victoria-street, S.W.1	825 0
A. Cannon	765 0
Glen Cumbley & Co., Griffithstown	599 10
T. O. Waterhouse, Shipley	567 7
George Jones & Son	558 0
R. W. Ivey	520 15

(Remainder of London.)

Loughborough.—Warehouse on Nottingham-road, for Messrs. Towle's, Ltd. Messrs. W. Moss & Sons, Ltd., architects, Queen's-road :—

*W. Moss & Sons, Ltd., Loughborough.

Manchester.—Electricity sub-station in Brook-street, Marble-street and West Mosley-street, for Messrs. Lewis's, Ltd., Market-street, Emporium. Messrs. J. W. Beaumont & Sons, FF.R.I.B.A., architects, 24, Brazennose-street :—

*R. Carlyle & Co., Ltd., Manchester.

Manchester.—Additions to paper works, Irkdale-street, Collyhurst, for Messrs. J. Hargreaves, Ltd. Messrs. Brocklehurst & Hill, architects, Derby-chambers, Bury :—

*J. Greenwood, Ltd., Bury.

Manchester.—Extensions to buildings in Trafford-park, for Messrs. Taylor Brothers & Co., Ltd. Messrs. Taylor's own engineers :—

G. J. Clarke, Manchester.

Manchester.—Rebuilding premises in Grosvenor-street, Ardwick, for Messrs. T. Jack and Co. (Manchester), Ltd., skirt manufacturers. Mr. Phillip Barker, F.R.I.B.A., architect, 32, King-street West, Manchester :—

*Tinker & Young, Ltd., Manchester.

Mansfield.—Extensions to the Mansfield Hospital in West Hall-drive. Messrs. Vallance & Westwick, A.R.I.B.A., architects, White Hart-chambers :—

*Hy. James, jun., Mansfield.

Steelwork—*Flint & Bates, Mansfield.

Meriden.—Septic tank and sewage filter, 250 lineal yards of 6-in. glazed socket pipe sewer and incidental works, at Furnace End, over Whitacre, for the R.D.C. Mr. A. W. Liggins, clerk :—

*A. E. Gilks, Meriden	£290 15 9

Minehead.—Reconstruction of shop premises, for Messrs. W. Tarr & Sons, Friday-street. Mr. J. C. Beare, architects, 42, Devon-square, Newton Abbot. Quantities by Messrs. Harris & Hills, Paignton :—

J. W. Burt & Sons, Minehead	£4,991
Minehead Building and Construction Co., Minehead	4,672
T. Burgess & Sons, Minehead	4,167
C. Bryer & Son, Ltd., Bridgewater	4,100
Henry Pollard & Sons, Bridgewater	4,048
*J. Hine & Sons, Dunster	3,777

Musselburgh.—New Grammar school, for the Midlothian E.C. Mr. William Scott, architect :—

Mason and Brick work—	
J. Dennis & Co., Ltd., White Hart-street, Dalkeith	£13,388 0 0
Joiner work—	
A. Morison, 28, North High-street, Musselburgh	8,360 0 0
Glazier work—	
A. Cunningham & Co., 18, Leith-street, Edinburgh	410 0 0
Reinforced Concrete Floors—	
Stuart's Granolithic Co., Ltd., 46, Duff-street, Edinburgh	3,940 17 3
Cement Paving—	
W. Robertson & Co., Roseburn-street, Edinburgh	2,514 0 0
Structural Steel work—	
Redpath, Brown & Co., Ltd., St. Andrew Steel-works, Edinburgh	1,451 13 1
Plaster work—	
J. Monteith, White Hart-street, Dalkeith	1,712 17 2
Terrazzo Floors and Dados—	
Toffolo, Jackson & Co., 110, West Regent-street, Glasgow, C.2	1,065 19 9
Roof Asphalt work—	
D. Anderson & Son, Ltd., Stretford, Manchester	311 2 0
Slater and Harler works—	
A. Leckie & Son, High-street, Bonnyrigg	2,354 12 4
Plumber work—	
A. Morison, 28, North High-street, Musselburgh	3,070 0 0
Painter work—	
A. Knowles & Son, High-street, Bonnyrigg	1,086 18 8
Steel Casement Windows—	
Williams, Gamon & Co., Ltd., Kaleyards-works, Chester	421 14 0
Heating Installation—	
J. Boyd & Son, Paisley	3,988 4 11
Electrical Installation—	
Inveresk Electrical Engineering Co., Ltd., Inveresk, Musselburgh	2,151 0 9

Newark.—56 non-parlour houses with boundary wall, off Bowbridge-road, for the Corporation. Mr. J. H. Clarke, Borough Surveyor :—

G. Saul & Sons, Ltd., Rotherham	£21,343
Bainbridge, Ltd., Doncaster	19,827
W. Foster & Son, Grantham	19,105
Markwell, Holmes & Hayter, Hull	18,780
J. Thompson, Thorne	18,138
C. P. Unwin, Ecclesfield	17,604
J. Wright & Sons, Newark	17,590
Pearson & Blackwell, Doncaster	17,590
S. Johnson, Hucknall	17,556
John Plumb, Hucknall	16,821
*Wm. Smith (Newark), Ltd., Millgate, Newark	16,696

Newquay.—Building work in connection with laying on hot and cold water to all bedrooms, etc., and other work at the Headland Hotel. Messrs. Cowell, Drewitt & Wheatly, A.R.I.B.A., architects, Central-chambers, Newquay :—

*R. J. Pearce & Son, Newquay.

Newquay.—Cottage hospital. Mr. E. Higman, L.R.I.B.A., architect, Barras-street, Liskeard :—

*Runnalls & Sons, Liskeard.

Northumberland. — Remodelling the existing school buildings at East Chevington, Red-row, for the E.C. Mr. C. Williams, Director of Education, The Moothall, Newcastle-upon-Tyne :—

*G. Towers, Blyth	£2,454

Petersfield.—Five miles of 6 in., 9 in. and 12 in. pipe sewers, with all manholes, etc., and including three railway crossings and several river crossings; and sewage purification works, consisting of detritus tanks, sedimentation tanks, percolating filters, and humus tank, and other works in connection with sewerage and sewage disposal of the contributory places of Liss and Greatham, for the R.D.C. Mr. H. C. Adams, consulting engineer, 60, Queen Victoria-street, E.C.4 :—

Stewart & Partners, London	£37,116 14
Mortimer Vine, Bournemouth	36,088 0
George Bell & Sons, Ltd., London	35,715 12
Tileman & Co., Ltd., London	34,968 1
Howard Farrow, Ltd., London	31,021 10
*G. P. Trentham, Ltd., London	27,186 10
H. Middleton, Liss (Informal)	26,891 9
George Riley, Halifax (Withdrawn)	23,950 8

Plymouth.—Building in Devonport-park, for the Maternity and Child Welfare Committee. Mr. J. Wibberley, City Engineer, Surveyor and Architect, Sun-buildings :—

‡Wakeham Bros., Ltd., Knighton-road, Plymouth	£1,465

Plymouth.—School at the new suburb of North Prospect, for the E.C. :—

*Carkeek & Sons, Ltd.	£28,027

Poole.—For (*a*) 32 houses in Coles-avenue, Hamworthy, and (*b*) 8 in Haskells-road, Newtown, for the T.C. Mr. E. J. Goodacre, Borough Engineer :—

(*a*)—*J. Hallett, 35, Shaftesbury-road, Poole	£9,569
(*b*)—*J. H. Wilson & Sons, Highcliffe-works, Sandbanks-road, Parkstone	5,840

Portsmouth.—Erection of Secondary schools for boys and girls, at North End, for the City Education Committee. Mr. Adrien J. Sharp, Architect, Education Department. Quantities by Messrs. A. E. Cogswell & Sons, of Portsmouth :—

J. Lay, Ltd., Portsmouth	£120,000
Moss & Sons, Chelmsford	119,873
H. E. Pitt, Sunderland	113,085
Chapman, Lowry & Puttick, Haslemere	111,500
Playfair Toole, Ltd., Southampton	111,333
Conway, Ltd., Weymouth	110,890
Tanner Bros., Southsea	110,000
E. & A. Sprigings, Portsmouth	109,500
Howe & Bishop, Portsmouth	108,473
Griffiths, Sons & Cromwell, Ltd., London	108,365
F. Bevis, Ltd., Portsmouth	108,246
Rowland Bros., Horsham	106,888
Humbys, Ltd., Farlington	105,370
‡S. Salter, Southsea	104,419

Prestatyn.—Widening and reconstruction of bridge No. 1 on Dyserth and Cwm Branch of L.M. & S.R., for the U.D.C. Mr. S. Trevor Roberts, engineer and surveyor :—

Staffordshire Public Works Co., Ltd., Newcastle	£4,804 8 0
Clegg Bros. (Burnley), Ltd., Burnley	4,485 16 0
Roberts & Sloss, Prestatyn	4,426 19 6
Howard Hollowday, Skipton	3,963 8 11
Albert E. Farr, London	3,487 1 0
Nott, Brodie & Co., Wallasey	3,411 1 4
*Whitley Brothers, Hirdir Lodge, Salisbury-park, Wrexham	3,110 0 5

Preston.—For (*a*) 228 houses on the Deepdale estate; and (*b*) 22 houses an the Fishwick-parade for the C.B. Borough Engineer and Surveyor :—

(*a*) *Pius A. Baines & Sons, Preston	£86,552
(*b*) *A. Swarbrick, Preston	8,240

Scarborough.—Alterations and additions to premises in Newborough, for Messrs. Marks & Spencers, Ltd., 35, Chiswell-street, London, E.C.1. Messrs. Biscomb & Ferrey, architects, New-street-chambers, York :—

*Bovis (1928), Ltd., London, W.1.

Shardlow.—Sewerage extensions at Stapleford and Sandiacre, for the R.D.C. Messrs. Elliott & Brown, chartered civil engineers, Burton-buildings, Parliament-street, Nottingham :—

Lane Bros., Mansfield	£42,940 0
A. H. Price & Co., Nottingham	42,562 15
J. & J. Warner, Mickleover	42,000 0
Fletcher & Co., Ltd., Mansfield	41,501 12
A. Monk & Co., Ltd., Warrington	40,759 16
Bolton & Lakin, Ltd., Birmingham	40,563 18
Crawford Bros., Moreton	40,052 3
C. S. Tomlinson, Alfreton	39,500 0
Longson & Darnley, Stockport	39,318 10
H. H. Barry, Radcliffe-on-Trent	37,762 11
J. E. Jervis, Long Eaton	37,634 0
T. Bugbird & Son, Stamford	37,500 0
*Bentley & Wardman, Grange-road, Bradford	35,496 0

Scarborough.—Alterations to premises in Newborough, for Messrs. Montague Burton, Ltd., Hunslet Mills, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay, Leeds:—
*Bovis (1928), Ltd., London, W.1.

Sheffield.—Houses on the Longley estate, by T.C.:
36 *houses*—
*Maxfield Brothers £14,930
40 *houses*—
*Higton & Sons 15,577
67 *houses*—
*M. J. Gleeson, Ltd. 24,401

Shorncliffe.—Warrant officers' quarters at Risborough Barracks, for H.M. War Office:—
*R. J. Barwick, Market-street, Dover.

Somercotes.—Council school, for the Derbyshire E.C. Mr. G. H. Widdows, F.R.I.B.A., Architect to Committee, County Offices, St. Mary's Gate, Derby:—
*C. H. Hill, Victoria-street, Mansfield.

Stockport.—Reconstruction of buildings in Wellington-road South, for Messrs. G. W. Smith & Co. (1928), Ltd. Messrs. Cruickshank & Seward, L.R.I.B.A., architects, 18, Booth-street, Manchester:—
Builders—*T. Renshaw, Cheadle Heath.
Plumbing and Heating—*E. Parry, Stockport.
Electrical Installation—*McClure & Whitfield, Adswood, Stockport.

Thorne.—Elementary school and caretaker's house, Goole-road, for the West Riding C.C. Mr. H. Wormald, A.R.I.B.A., County Architect, County Hall, Wakefield:—
*A. Gregory & Son, Ltd., Castleford.

Twickenham.—Alterations to buildings, tanks, etc., and construction of effluent outfall sewer, for the T.C.:—
†H. E. West £8,518 9 11

Tynemouth.—Shop, pavilion and cafe at the Tynemouth Park extension, for the T.C.:—
*Temple & Pyle, Whitley Bay £1,421

Urmston.—Alterations and additions to the branch premises in Crofts Bank-road, for the District Bank, Ltd. Messrs. Francis Jones & H. A. Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-road, Manchester:—
*J. F. Moore, Ltd., Eccles.

Weymouth.—External painting of 50 houses on the Westham housing site, for the Corporation. Mr. R. W. Vine, Borough Engineer and Surveyor:—
*Rendell & Son, St. Thomas-street, Weymouth £137 10

Witham.—10 houses of the parlour type on the allotment field in Guithavon-road, for the Council. Mr. D. Jenkinson, surveyor:—
*P. C. Sayers £4,390

York.—100 houses on the Burton Stone-lane estate, for the T.C.:—
‡J. Sawdon, Bridlington £40,500

TURPIN'S FLOORS
Over 60 years' reputation for good work.
Ensure lasting satisfaction by entrusting your PARQUET, BLOCK, and HARDWOOD FLOORS to:—
Ask for Booklet "B."
TURPIN'S PARQUET FLOORING CO. 25 Notting Hill Gate, London, W.11. 'Phone: PARK 1885 and 7585.

HOSPITAL & SCHOOL STOVES
SOLE MAKERS OF WRIGHT'S IMPROVED AND ALSO SHORLAND'S PATENT WARM AIR VENTILATING PATTERNS.
GEO. WRIGHT (LONDON) LTD 19 NEWMAN ST OXFORD ST LONDON, W.1 WORKS - BURTON WEIR, BOTHERHAM

J. GLIKSTEN & SON
LIMITED
ESTABLISHED 1885
Specialists in
SEASONED HARDWOODS
of all descriptions for BANK, OFFICE, SHOP-FITTERS, and BUILDING TRADES.
Timber always fit for immediate use.
PLYWOOD in all sizes and qualities.
Forty acres Storage Wharf and Registered Office:—
CARPENTERS RD., STRATFORD, LONDON, E.15.
Telephone: East 3771 (5 lines)
Telegrams: Gliksten, 'Phone, London.

J. J. ETRIDGE, Jr. Ltd
SLATING AND TILING
SLATE MERCHANTS
CONTRACTORS
Inspections and Reports made on OLD OR FAULTY ROOFS in any part of the country.
Telephone Bishopsgate 1944/5, or write
Bethnal Green Slate Works,
BETHNAL GREEN, LONDON, E.

OAK FLOORING
1000 SQUARES 1" x 4 MILD GRAINED AUSTRIAN
SYDNEY PRIDAY & SNEWIN LTD.
Oak Specialists & Hardwood Merchants
OAK WHARF, RAVENSDALE RD., N.16
Phone: CLISSOLD 6263 (3 lines)

FITZPATRICK & SON
MASONS & PAVIORS
PAVING WORK OF EVERY DESCRIPTION
Largest stock of Second-Hand and Redressed (equal to new) Granite Setts in London, at Rock-bottom Prices.
Rectangular and Crazy York Paving, Rockery Stone, Granite Chippings and Tarmacadam.
Spur Stones to order.
Quadrant Blocks in stock.
454 OLD FORD ROAD, LONDON, E.3
'Phone—EAST 6336 7/8

FLOORINGS OF ALL KINDS
WOOD BLOCK-PARQUET
SOLID T & G HARDWOOD
Stevens & Adams Ltd
POINT PLEASANT · WANDSWORTH · S.W.18
TELEPHONE · PUTNEY 4701-2-3-4

PORTLAND STONE
Stone from these Quarries was used in refacing Buckingham Palace & in the construction of Waterloo Station, Victory Arch, etc.
F. J. Barnes, Ltd. Quarry Owners. Office & Works: Portland, Dorset. London Office: 25, Nine Elms Lane, S.W.8.